

HOUSING FINANCE REFORM: FUNDAMENTALS OF TRANSFERRING CREDIT RISK IN A FUTURE HOUSING FINANCE SYSTEM

HEARING BEFORE THE COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS UNITED STATES SENATE ONE HUNDRED THIRTEENTH CONGRESS

FIRST SESSION

ON

EXAMINING THE CONCEPT OF RISK SHARING CONSIDERED IN THE
CONTEXT OF THE HOUSING FINANCE MARKET AND THE RISK TRANS-
FER TRANSACTIONS ENTERED INTO BY FANNIE MAE AND FREDDIE
MAC

DECEMBER 10, 2013

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HOUSING FINANCE REFORM: FUNDAMENTALS OF TRANSFERRING CREDIT RISK IN A FUTURE HOUSING FINANCE SYSTEM

TUESDAY, DECEMBER 10, 2013

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, DC.

The Committee met at 2:38 p.m., in room SD-538, Dirksen Senate Office Building, Hon. Tim Johnson, Chairman of the Committee, presiding.

OPENING STATEMENT OF CHAIRMAN TIM JOHNSON

Chairman JOHNSON. I call this hearing to order.

This hearing is the last in our in-depth series of policy hearings to explore the benefits and challenges of reforming the housing finance system. At the urging of Committee Members and with the help of witnesses representing stakeholders across the industry, consumer, and policy spectrum, Ranking Member Crapo and I established an aggressive hearing schedule focusing on what we agreed were essential pieces for consideration in a new housing finance system. I would like to thank Ranking Member Crapo and his staff for their good partnership and coordination in undertaking this complicated effort. I would also like to thank all the witnesses that have participated. There are numerous players in the housing finance system that have structured their businesses and household decisions around the current system contributing to nearly 20 percent of the economy. As we draft changes to the system, we must keep that in mind.

Witnesses in previous hearings overwhelmingly agreed that any new housing finance system should include an explicit Government guarantee with private capital taking the first-loss position. However, as we explored during the hearing regarding the transition, we must be certain that there will be enough interest from private capital to prevent the reduction of liquidity and mortgage credit. Today's hearing will examine several ways that private capital can take on additional credit risk in front of a Government guarantee and the features that are required to attract private capital.

When considering options for expanding private capital's role in the secondary mortgage market, I believe the structures should be compatible with the TBA market in order to ensure continued availability of the 30-year fixed-rate mortgage. It is not clear that certain transactions envisioned by S.1217 are TBA compatible, but the recent credit risk transfer transactions conducted by Fannie

Mae and Freddie Mac may provide one blueprint that is. I look forward to learning more about those transactions today and how we can improve on S.1217 in this respect.

I am also concerned that in a system with multiple private capital structures as options, not all forms of private capital will provide equal protection for taxpayers. As we saw during the recent housing boom and subsequent crisis, private capital will participate during a boom and flee in a downturn. If we are going to construct a new system that is even more dependent on private capital, we must work to ensure that private capital is stable and appropriately allocated and that any new structure functions well so that responsible homebuyers are not priced out of the market.

Last, for any future system to function and maintain the trust of consumers, investors, and taxpayers, there needs to be clear guidelines regarding how loan modification requests are evaluated and how principal and interest are paid to investors in the event of a modification or a borrower default. I would like to thank our witnesses for being here today, and I look forward to your thoughts regarding how the different private capital structures could perform in various economic circumstances and what a new system would need to be able to maintain the TBA market.

With that, I will turn to Senator Crapo.

STATEMENT OF SENATOR MIKE CRAPO

Senator CRAPO. Thank you very much, Mr. Chairman. We made it to our last hearing, at least to this point, right?

As the Committee continues to consider broad reform of the housing finance system, I am encouraged by the progress that we have made over the last few months. Since August, the Committee has held nine hearings on specific components that could make up a new housing finance system, and I appreciate the Chairman's initiative and perseverance and your thoughtfulness in working through these complex matters. I remain strongly committed to working with the Chairman and all of my colleagues toward a bipartisan solution in the near future.

During a prior hearing, the Committee examined the construct for a potential Government guarantee of certain mortgage-backed securities. Today the Committee will take a closer look into the mechanics of allocating private capital ahead of such a properly tailored Government guarantee.

As in prior hearings, I am going to reinforce that if we consider housing reform options that include a Government guarantee, we must ensure that there is robust private capital taking the first-loss position. We must also ensure that the first-loss positions are in front of mortgages with high-quality underwriting.

If there is not proper underwriting and allocation of private capital ahead of the Government guarantee, we could find ourselves in another taxpayer bailout scenario. That would be unacceptable.

I welcome the perspective of our witnesses on the potential risk transfer options that could be used to attract private capital to this first-loss position, including the benefits and tradeoffs of each option. In particular, I am interested to hear your views on which risk transfer mechanisms could bring in an appropriate amount of

private capital while still prioritizing taxpayer protection to the fullest extent possible.

S.1217 contemplates several mechanisms for the security level risk transfer: bond guarantors, one of two capital markets approaches, as well as any risk-sharing agreements undertaken by the Federal Housing Finance Agency.

The bill provides that bond guarantors would be approved by the Government to hold a 10-percent first-loss position against the covered mortgage-backed securities which they guarantee. To ensure that we have responsible, sustainable mortgage-backed securities products, the bond guarantor should stand behind 100 percent of the principal value of the security. This means that the bond guarantor must exhaust all of its financial resources and become insolvent prior to the triggering of a Government guarantee. How, if at all, should legislation address allowing a bond guarantor to engage in risk-sharing transactions for the risk it takes on in absorbing the 10 percent?

With respect to capital market transactions, one option is the creation of a senior-subordinated first-loss piece. Under this capital markets approach, S.1217 provides that the Government backstop would attach once the 10-percent subordinated piece is exhausted. Some have expressed concern regarding how the senior-subordinated structure contemplated in S.1217 would interact with the current TBA market structure. Could this senior-subordinated structure become TBA deliverable if both pieces are made up of standardized loans?

A second capital markets option contemplated in S.1217 is a credit-linked note structure which allows investors to receive payment based on a pool's losses. Are there tradeoffs to the credit-linked note structure that could make it more or less attractive to private investors?

I look forward to the witnesses' views on whether these three options could coexist in the marketplace as well as other options that could be attractive to private sector capital. The FHFA has started the experiment with risk transfer mechanisms this year. The Freddie Mac STACR deal and Fannie Mae's NMI and C-Deals are a starting point for gauging investor appetite in taking the first-loss position. Can these deals be replicated in the future? How quickly and to what extent can these transactions be developed? What lessons can we learn as we try to duplicate these risk-sharing transactions?

I am also interested to hear from the experts before us today on how future risk-sharing transactions could work with a common utility for the securitization of covered mortgage-backed securities. The hearings we have held over the past several months have allowed us to gather all relevant viewpoints and develop a strong, factual record.

Mr. Chairman, again I thank you for your perseverance in moving ahead aggressively and for your leadership as we move forward on this housing reform package.

Chairman JOHNSON. Thank you, Senator Crapo.

Are there any other Members who would like to give a brief opening statement?

[No response.]

Chairman JOHNSON. I would like to remind my colleagues that the record will be open for the next 7 days for additional statements and other materials.

Before we begin, I would like to introduce our witnesses that are here with us today:

First, Mr. Kevin Palmer, Vice President at Freddie Mac;

Ms. Laurel Davis, Vice President at Fannie Mae;

Mr. Ted Durant, Vice President of Analytic Services at the Mortgage Guaranty Insurance Corporation;

And Mr. Sandeep Bordia, head of Residential and Commercial Credit Strategy at Barclays Capital.

We welcome all of you here today and thank you for your time. I would also note that Ms. Wanda DeLeo was scheduled to testify today, but because of the weather is unable to attend. Ms. DeLeo's testimony will be submitted for the record, and she has agreed to answer questions for the record.

Chairman JOHNSON. Mr. Palmer, you may proceed.

STATEMENT OF KEVIN PALMER, VICE PRESIDENT, STRATEGIC CREDIT COSTING AND STRUCTURING, FREDDIE MAC

Mr. PALMER. Well, thank you. Chairman Johnson, Ranking Member Crapo, and Members of the Committee, thank you for inviting me to appear today. I am Kevin Palmer. I head the business unit that developed and executed Freddie Mac's credit risk sharing transactions.

More than 2 years ago, Freddie Mac began looking at ways to build tools to transfer credit risk from our books to private investors. Given the size of our guarantee books, we needed to create tools that could be scalable and sustainable. We also believe it is important to have multiple types of structures to provide flexibility to transfer risk at the lowest cost and with the least amount of disruption to the mortgage market.

So we studied a variety of risk transfer options and structures, looking carefully at both their economics and whether they could be made to work operationally. This helped us prepare for FHFA's credit risk sharing directives in its 2012 and 2013 scorecards.

In 2013, we executed two different risk transfer structures in three transactions. We continue to explore other structures that meet our overall program objectives. At a high level, these objectives are: first, to reduce taxpayer exposure to credit risk of our mortgage purchases; second, bring new credit investors into the mortgage market; third, create innovative products that are both expandable and attractive over time; and, finally, preserve the cost efficiencies of the to-be-announced, or TBA, market.

I am pleased to report that we have met these objectives. Our first two transactions were offerings of structured agency credit risk debt notes. We call them "STACR." We transferred a portion of the credit risk from more than 200,000 single-family mortgages we recently purchases. Payments to investors in STACR notes are determined by the performance of this group of mortgages. We retained some of the risk exposure as well as the first-loss position. This assured investors that our interests and theirs are aligned. Retaining the first-loss position also helped investors get com-

fortable with STACR and helped make the structure more economically attractive.

Freddie Mac retained control of the servicing of the loans. This ensures we can maintain high servicing standards and provide strong loss mitigation support to at-risk borrowers. We are pleased by the market response to our STACR offerings. Diverse groups of about 50 investors participated in each transaction. We announced our third risk-sharing transaction in November: an insurance policy underwritten by a large global reinsurance company. We see a lot of potential for these types of deals with reinsurance companies.

Going forward, we plan on doing more STACR and reinsurance deals. We are also looking at other structures for risk sharing, including credit-linked notes, recourse agreements with lenders, and senior-subordinate structures.

In summary, we are very encouraged by the strong investor interest in our risk-sharing offerings. We believe we can create products that are scalable and attractive to investors.

Let me conclude with three key lessons that should be helpful to you as you consider these issues.

First, we do not yet know how much mortgage credit risk sharing investors are willing to do in the long term, particularly during market and economic downturns. Our offerings were successful, in large part because conditions today are highly favorable for investment in mortgage credit risk. House prices are generally appreciating, and credit quality is high by historical standards. But we also have seen in recent history that investors can and will leave the mortgage market when conditions are less favorable.

Second, we have encountered a number of regulatory, tax, and accounting issues that either affected the interest of certain investors in our offerings or influenced how we structured those offerings. I detail these in my written statement. We believe Congress should consider these and other similar issues as it determines the role that credit risk sharing instruments can play in any future housing system.

Finally, risk-sharing transactions should continue to be designed to be compatible with the forward mortgage market, which provides key benefits to both borrowers and lenders.

Thank you again for this opportunity to appear today, and I look forward to any questions.

Chairman JOHNSON. Thank you.

Ms. Davis, you may proceed.

STATEMENT OF LAUREL DAVIS, VICE PRESIDENT FOR CREDIT RISK TRANSFER, FANNIE MAE

Ms. DAVIS. Chairman Johnson, Ranking Member Crapo, and Members of the Committee, thank you for the opportunity to testify today. My name is Laurel Davis, and I am the Vice President for Credit Risk Transfer at Fannie Mae. My testimony today will address how we manage our credit risk and our recent credit risk transfer transactions.

Fannie Mae assumes credit risk on the loans in the securities we guarantee. That means if a loan we guarantee goes into default or foreclosure, Fannie Mae takes the resulting losses. Since the onset of the housing crisis, Fannie Mae has made numerous improve-

ments to how we analyze our credit risk and to our underwriting and servicing standards to reduce such risk. We also made significant improvements to how we monitor the origination processes of our lender customers.

As we have upgraded our credit policies and monitoring, the performance of loans that we acquire has improved dramatically. Loans originated since 2009 have been performing well and are approximately 75 percent of our total book of business today. As a result of our efforts and an improved housing market, we have recorded seven straight quarters of profit and, as of December 31st, we will have paid almost \$114 billion in dividends to the Treasury Department versus total draws of approximately \$116 billion.

Prior to bringing our credit risk transfer transactions to market, we spent significant time with investors and mortgage insurance, or MI, companies to educate them on our credit and servicing policies. A strong understanding of these policies was important to the success of these transactions. This was important because investors understood that Fannie Mae was acting as their counterparty and as an intermediary between originators with whom we do business and investors in the securities. This intermediary role makes these types of transactions possible. It allowed the 77 investors in the securities to rely on our infrastructure and standards rather than understanding the standards of more than 1,000 lenders with whom we do business. Fannie Mae also serves as an ongoing and active credit risk manager on behalf of itself and the investors.

We have brought two credit risk transfer transactions to market in the second half of this year. One was a securities transaction and the other a mortgage insurance contract to provide deeper MI coverage. These transactions involved the sale of mezzanine risk and sought to reduce our exposure to unexpected losses on loans we have acquired. They also provide an additional avenue for private capital to enter the mortgage market.

We structured both transactions to meet a number of goals, including having no impact on how a loan is serviced, to ensure that borrowers have access to the full range of refinance and foreclosure prevention options, to require no changes to lender operations, and to preserve a TBA execution. The TBA market is a well-functioning and liquid market that allows borrowers to lock in mortgage rates in advance and originators to hedge the associated risk.

The securities transaction was the first offering in our Connecticut Avenue Securities Series, or our C-Deals. In this transaction, investors purchased a portion of credit risk on a reference pool of recently originated loans. The reference pool in this first C-Deal transaction included approximately 112,000 loans totaling \$27 billion in unpaid principal balance, which were acquired in the third quarter of 2012. These loans accounted for approximately 12 percent of the acquisitions in that quarter.

As the loans in the reference pool are paid off by homeowners, Fannie Mae will pay down the principal balance of the C-Deal securities. If there are credit events on loans in the reference pool such as default or foreclosure, investors may experience losses in their investment.

Fannie Mae retained a first-loss portion in an amount that represents a multiple of our expected losses. We sold two tranches of

mezzanine risk and retained the senior risk in the structure. We also retained a portion of the mezzanine risk in an effort, at least initially, to keep additional skin in the game.

As I noted earlier, we also entered into a mortgage insurance agreement with National Mortgage Insurance, or NMI. This was a back-end MI contract on a group of loans that totaled approximately \$5 billion in unpaid principal balance. The loans included in this transaction had loan-to-value ratios, or LTVs, of 70 to 80 percent. In this transaction, Fannie Mae's liability has been reduced to 50-percent LTV on the covered loans. Under the contract, Fannie Mae will take the first loss up to 20 basis point or \$10.3 million. This amount is over two times our expected losses on the covered loans. NMI will be liable for the next \$90 million in losses, and Fannie Mae will then be responsible for any additional losses on the loans. The first and mezzanine risk pieces were set at a level that exceeds our projected losses in a stress scenario similar to the 2006–12 timeframe.

We are very pleased with the reaction to these transactions from market participants. We are currently working on bringing another C-Deal transaction to market in January, and we will continue to look for opportunities to execute other risk-sharing transactions.

Thank you again for this opportunity to testify before the Committee, and I look forward to answering any questions you may have.

Chairman JOHNSON. Thank you.

Mr. Durant, you may proceed.

STATEMENT OF TED DURANT, VICE PRESIDENT OF ANALYTIC SERVICES, MORTGAGE GUARANTY INSURANCE CORPORATION

Mr. DURANT. Thank you, Chairman Johnson, Ranking Member Crapo, and Members of the Committee. MGIC created the modern private mortgage insurance industry in 1957, and we created the modern bond insurance industry in 1971. We have experienced the best and the worst of times in housing finance, and we hope that our experience will be helpful as you contemplate reform.

We believe that having survived the recent housing crisis and saved taxpayers \$40 billion, the private mortgage insurance model has proven its value and earned its inclusion in S.1217 as a fundamental component of a new housing finance system. We would like to discuss today how private MI integrates with other risk transfer mechanisms to create a housing finance system in which mortgages are both affordable and widely available through the cycle and taxpayer risk is truly remote.

S.1217 identifies several potential credit risk transfer mechanisms and the entities that might provide them. However, we suggest improvement in five areas.

First, legislation should clarify the roles and the responsibilities of the bond guarantors and the mortgage insurers. Bond guarantors should operate at a remote risk level, guaranteeing the timely payment of principal and interest to bond holders should the issuer fail. Mortgage insurance operates primarily at the loan level, taking a first-loss position on higher-risk loans and, importantly, providing critical oversight of the underwriting and servicing of those loans.

In addition, mortgage insurers offer pool insurance to provide a cost-effective means of filling any gaps between loan-level insurance and bond insurance. Mortgage insurance and bond insurance should be kept distinct from each other and viewed as complementary not competing forms of credit risk transfer. As long as the appropriate distinctions and rules are maintained, we expect investors to find both businesses attractive.

Second, legislation should recognize the private capital benefit that is provided by mortgage insurance. A subordinated securitization structure provides a deceptively simple measure of private sector capital at risk. Insurers provide substantial loss-absorbing resources with a combination of capital, reserves, and renewal premium, or guarantee fees. The formula for counting up the private sector capital at risk must include the resources provided by primary and pool MI.

Third, legislation should establish a clear preference for using properly regulated and capitalized entities which are dedicated to the business of identifying, assuming, and managing credit risk through the economic cycles. The illusion of a “best execution” cost advantage of structured transactions is, in reality, the mechanism that creates the boom-bust cycle, providing too much credit in a boom and no credit in a bust.

To ensure a stable source of capital and proper regulation of mortgage and bond insurers, we recommend the continued use of State insurance regulators, reserving for FMIC the role of counterparty risk management and monitoring. Regulation of bond insurers or mortgage insurers by FMIC raises significant Federal-State questions, adds further complexity to the management of FMIC, and concentrates oversight in a single point of failure.

Fourth, legislation should clarify the manner in which the Government guarantee is implemented. Stepping in when a subordinated tranche expires and stepping in when a guarantor fails are very different. Individual securities are far more likely to reach a specified loss level than thousands of securities guaranteed by an entity. Stepping in at predetermined loss level, for example, on a vintage basis will create the optics of a bailout, but it will also create a greater likelihood that the guarantors are able to continue in business through a crisis. Such an approach, however, must take into consideration both mortgage insurers and bond guarantors.

Fifth, legislation must comprehensively address housing finance reform. We at MGIC are less concerned about the absolute level of the capital requirement than we are about unequal capital requirements that favor one form of financing over another. Setting higher capital requirements and attachment points makes the taxpayer risk more remote, but it also translates into higher costs for borrowers and increased motivation for lenders to fund loans through alternative channels.

The current system divides the mortgage world into Government and conventional lending silos. Reform efforts in one silo merely encourage the shift of loan production into the other silo. Reform should provide for consistent, uniform rules that apply regardless of the source of funding for the loans.

Thank you for the opportunity to testify today. I look forward to your questions.

Chairman JOHNSON. Thank you.
Mr. Bordia, you may proceed.

**STATEMENT OF SANDEEP BORDIA, HEAD OF RESIDENTIAL
AND COMMERCIAL CREDIT STRATEGY, BARCLAYS CAPITAL**

Mr. BORDIA. Good afternoon, Chairman Johnson, Ranking Member Crapo, and other Members of the Committee. My group at Barclays covers research on mortgage markets, including research on housing finance. I appreciate the opportunity to discuss the fundamentals of transferring credit risk from the U.S. taxpayer to the private markets.

To begin with, let me talk briefly about the credit-linked deals recently sold by the GSEs. So far, three deals have been priced. In each of these deals, the GSEs retained the risk in the first 0.3-percent loss position and sold the credit risk on the 0.3- to 3-percent loss position.

The structures were well received by the market, with several dozen investors participating. To be successful, any solution used to transfer mortgage credit risk to the private market should have certain basic features. The solution should preserve the well-functioning TBA market, should be simple, and use existing financial technology. The credit-linked note structure satisfies all these three conditions.

The initial response from the market is also positive. However, a few more things need to happen for this program to be successful in the long run.

Number one, since there are fixed costs for investors to set up systems to analyze and track performance of these deals, we need to feel assured that these deals are not one-offs and the program is here to stay. So issuance should be programmatic with limited experimentation in structures.

Number two, expanding the type of collateral on which credit risk is sold is critical. The initial deals covered only the cleanest portion of GSE originations that is not fully representative of the collateral quality that any future entity would be expected to guarantee over time.

In terms of the market appetite to absorb the risk, while the initial three deals have been oversubscribed, the amount of credit risk sold so far is minuscule in comparison to what the GSEs have on their guarantee books. I believe that the market can absorb \$5 to \$10 billion of such supply next year and even greater numbers in later years. However, for the program to get to a stage where it can absorb much of the mortgage credit risk with GSEs, it would realistically take several years.

As for the attachment point for the Government entity, it is a function of the policy goal and also the collateral quality on which the credit risk is being sold. The attachment point would be higher if the policy goal is to prevent taxpayer losses even in extreme draconian scenarios. And it should also be higher for worse credit pools. In my view, a constant attachment point for all kinds of collateral, as discussed in Senate bill 1217, may not be most optimal.

There are two other approaches that are being considered for transferring credit risk from a Government-sponsored entity. The

first is to use a securitization style senior-sub structure, and the second is to use well-capitalized bond guarantors to cover losses.

A senior-sub structure is less preferable to a credit-linked note such as it would entail a difficult transition from a well-functioning TBA market. A senior-sub structure could also increase the warehousing costs for originators, which would be particularly problematic for smaller originators.

The other option is to use bond guarantors as providers of first loss. On the positive side, a bond guarantor solution would likely provide more stable funding for mortgage credit than other options. However, the bond guarantor structure also has two major drawbacks.

Number one, this form of insurance may result in some counterparty credit risk to the taxpayer. The STACR/CAS deals provide the GSEs with up-front cash available to protect taxpayers from losses. Bond guarantors would not have to pay anything up front and, as such, may not work as a safeguard under certain conditions.

The second drawback is that the bond guarantee structures would be less transparent and provide slower market feedback than credit-linked notes.

In conclusion, while we favor the credit-linked structure, given the size of credit risk transfer required over the long run, it might be preferable to have multiple exit options including through bond guarantors. We would caution policy makers to closely watch the pace of any big transition.

Chairman Johnson, Ranking Member Crapo, and other Members of the Committee, I thank you for your time and attention and the opportunity to testify before the Committee. I look forward to answering any questions you may have.

Chairman JOHNSON. Thank you. Thank you all for your testimony.

As we begin questions, I will ask the clerk to put 5 minutes on the clock for each Member.

Ms. Davis, what elements of your risk-sharing were most important to preserve the TBA market? Were there structures that you considered but eliminated because they were incompatible with the TBA market?

Ms. DAVIS. Thank you. Yes, we have been working on this looking at various alternatives for credit risk transfer over the past year and a half, almost 2 years, and we did look at a variety of different structures as we decided what to do.

We considered a cash senior-sub style deal as well as the credit-linked note. Ultimately, at least initially, we decided against the cash senior-sub deal because of the very point that you make. It would not have been compatible with the TBA market.

With the credit-linked note, we can allow the loans to go into TBA. That market provides the funding for the loans so that the interest rate risk is transferred off to investors. The loans are funded through a very deep, liquid market. We can then sell the credit risk to a different set of investors, and it does tend to be a different set of investors who are interested in purchasing the interest rate risk versus the credit risk on the loans. And so by using the credit-linked note structure, we are able to keep that front end of the

market functioning. Borrowers can lock rates. Lenders can hedge their pipeline. And yet we are able to still tap into the credit markets and offload the credit risk. So that is why we chose this particular structure.

Chairman JOHNSON. Mr. Palmer, the risk-sharing deals that have been executed rely on large reference pools of loans with at least 20-percent downpayments and 9 months of seasoning. Also, the enterprises retain both the first-loss and a vertical strip of the risk exposure.

Should legislation include flexibility regarding the features of risk-sharing deals in a new system?

Mr. PALMER. Thank you. Yes, it is important, I think as indicated in my oral statement, to have flexibility in risk-sharing transactions. As you said, the risk-sharing transactions that we have done initially were focused on 60 to 80 LTV loans. I think the focus in 2013 was building structures where you could transfer credit risk, and using those same structures, we now have an ability to transfer, you know, different types of credit risk, which will be a focus going forward.

Flexibility on the types of structures is important. We are in a certain unique environment today with very good underwriting standards, with home prices appreciating, and what works today may not work or be optimal in other types of environments, and retaining that flexibility we believe is very important.

Chairman JOHNSON. Mr. Bordia, your testimony suggests that capital levels proposed in S.1217 may be difficult to achieve. What are the risks of setting capital at such high levels?

Mr. BORDIA. I think there are a couple of issues that we are trying to resolve when we have a 10-percent capital assigned for all different kinds of collateral types.

Number one, if you are looking at really good quality collateral, then the expected losses might only be 20, 30, or 40 basis points, and at that point, if you want the entity who is insuring those mortgages to retain 10-percent capital, then the return on that particular capital is going to be really small.

So I think in some ways we are trying to strike a balance between protecting the taxpayer, and if you want to do that, then you want to have a lot of capital cushion. But at the same time, it will also lead to lower returns and, therefore, it is going to be harder to raise capital, that amount of capital.

So just to give an example, if you look at the total size of the mortgages which the GSEs are guaranteeing today, it is around \$4.5 to \$5 trillion. A 10-percent requirement on that would roughly be around \$400 to \$500 billion in capital, which is a very, very big number. If you look at the total amount of money that was raised in IPOs in the U.S. this year, it was around \$50 billion. If you look at just financial services firms, it was around \$10 billion.

So, yes, I think it is certainly possible over time that you create a market where you have a significant amount of capital that has been raised. It is a very, very difficult proposition.

Chairman JOHNSON. Mr. Durant, when considering the different methods of risk transfer for mortgage credit, what are the key issues to keep in mind?

Mr. DURANT. We would say separating out the distinction between protecting loans at the loan level, issuing credit enhancement with the origination of the loans versus the guaranteeing of the security-level enhancement. You need both. Loans down to, say, a 60 LTV level, those are very safe loans. You do not have to be as worried about loan-level credit enhancement. But when you get to lower downpayments and other risk factors on loans, you certainly do want to make sure that the loans are, at the time they are originated, looked over by entities like mortgage insurance companies who review the underwriting and ensure that the credit enhancement is in place prior to that loan entering into the securitization world.

Chairman JOHNSON. Senator Crapo.

Senator CRAPO. Thank you, Mr. Chairman.

Mr. Bordia, in your testimony you discuss the need to have a wide variety of options for moving mortgage credit risk into the private market as opposed to limited options. Could you explain the reasoning for that a little better? I assume that if we are too restrictive in the options that market participants have to satisfy private capital requirements, we would risk diminishing the appetite of the market to move private capital into the market. But could you explain that dynamic a little better?

Mr. BORDIA. I think I will refer to some of the things that I mentioned in answering the previous question. So if you are trying to insure close to \$5 trillion worth of mortgages, then you need a lot of capital. We have seen about \$1.8 billion of sales in credit-linked notes from GSEs this year, and they were massively oversubscribed. But to assume that you can go next year and sell \$15, \$20, or \$30 billion of those kind of notes I think it is practically not possible.

So the main reason when I say that, you know, we need to look at multiple options is because it is a limited amount of capital chasing different kind of assets on the fixed-income side. We have about \$850 billion of nonagency still outstanding, and those non-agency securities have about \$60 or \$70 billion in paydowns. And to the extent that all of those investors have mortgage credit expertise, you could assume that some part of that \$60 or \$70 billion comes into the marketplace. But if you try to do anything more than that, it is going to be complicated.

Then there is also another set of investors on the equity side which can basically—where you can also raise money and do something using the bond guarantors.

Senator CRAPO. Thank you. And, Mr. Palmer, you indicated in your testimony that there are a number of regulatory, tax, and accounting, I guess I will call them, “barriers”—I do not know if you used that word, but it sounded to me like that is what you were saying—to effectively creating the necessary instruments and risk management procedures that we need to engage in. Could you elaborate on that a little bit?

Mr. PALMER. Sure. We spent quite a bit of time working on the structures that we came to market with this year, and I think over the course of the 2 years that we worked on it, we definitely ran into a number of regulatory issues, either proposed or new rules that have come out. A couple key ones that I want to mention that

I refer to also in my written testimony is, you know, we referred to the transactions that have been done as credit-linked notes. They were actually, in fact, not credit-linked notes. They were debt offerings of the GSEs, and that was because of a new ruling that came down under the CFTC in 2012 that would have deemed these type of credit-linked notes as commodity pools. You know, we have engaged with FHFA and with Fannie Mae in conversations with the CFTC to ensure that we can be fully compliant with those rules. And we hope to ultimately move to a more traditional credit-linked note.

The importance there is that right now the structures that we are doing, investors are taking counterparty risk to the GSEs. Moving to a credit-linked note, you capture all of the cash up front in a bankruptcy remote trust, which protects both Freddie Mac and the investor from counterparty risk. So we think it is an important thing to move to in this credit-linked note structure.

Second, we think it is important for these securities to have, I will call it, "equal treatment" from a tax and a regulatory as others. So there have been some discussions here about senior-subordinate securitizations. There are some pros and cons there. One of the key cons is the lack of compatibility relative to the TBA market.

Investors today that invest in a senior-subordinate security are able to get—they treat it as a REMIC, which has more favorable tax treatments under that rule, and having a credit-linked note that is structured very similar to a senior-subordinate, having similar tax treatment for investors, both domestic REITs are the common investors as well as foreign investors, is important to know.

Senator CRAPO. All right. Thank you. You identify some problems in getting through the complexity here, but it is important that we get it right.

Mr. Durant, the last part of your testimony this afternoon related to the necessity that reform be comprehensive in the sense that, if I understood you right, we need to be sure that all loans are subject to the same capital requirements. Could you expand a little bit on your comment there?

Mr. DURANT. Sure. Clearly you have to think about capital that is required for loans that are held on balance sheets at banks versus within S.1217 is a 10-percent subordination level equivalent to a bond guarantor being required to be capitalized to a 10-percent level. Clearly, those are not the same things.

More importantly, I think we also have to also think about FHA, VA, and Ginnie Mae and how does all of this interact with FHA financing in particular. The changes we make to the rules around a Government-guaranteed section replacing Freddie and Fannie clearly are going to potentially drive loans back into FHA-VA lending.

Senator CRAPO. All right. Thank you.

Chairman JOHNSON. Senator Tester.

Senator TESTER. Thank you, Mr. Chairman. I want to thank both you and the Ranking Member for your work in holding these hearings. I think that they have been helpful, and I think that as a result there is some pretty significant progress, so I want to thank you both.

This is for Mr. Palmer and Ms. Davis. What guidance or advice regarding how to structure credit risk transactions would you provide to the future FMIC Director as conceived in S.1217, the Corker-Warner bill, based on your experiences in structuring such transactions at the enterprise that you have been through?

Mr. PALMER. Yes, I think the guidance that I would provide is, one, and it has been talked about here—that we need multiple types of options. Just within the two GSEs, there's \$5 trillion of guaranteed mortgages on our books, or maybe just under that. To be able to transfer that amount of risk to the markets I think you need to have multiple types of tools, as well as in a variety of different economic markets being able to use some tools more than others.

I think, second, it is important to think about holistically the various different regulatory rules as it relates to housing reform to ensure that it balances the need to be able to transfer credit risk to private markets as well as kind of the appropriate governance and controls for a sustainable market.

And then, last, it is important to preserve a forward market that we have discussed, the TBA market, which is what we have today, that provides key benefits to borrowers and lenders.

Senator TESTER. Ms. Davis, anything to add?

Ms. DAVIS. Sure. I definitely agree with Mr. Palmer in terms of what we learned about the TBA market and the fact that if you just think about the scalability of the types of programs that we are looking at here, the fact that you can tap into TBA for the funding of the loans and think about, you know, as I mentioned in my testimony, we sold risk on \$27 billion worth of loans, but the securities amount that we issued was \$675 million. So we were able to actually issue a much smaller amount of securities in order to cover that large amount of loans because of the fact that the loans had already previously been funded through TBA.

I think the second thing that I would add is one of the things that we learned definitely was the importance of the role of an intermediary in the transactions. As we went out on our road shows, investors were very interested in understanding how we originate the loans, what our credit policies are, what the QC standards are on the loans, how we will service the loans. And having that transparency around our practices and having that role of somebody setting those standards—and investors did a lot of credit work on these deals. We spent a lot of time educating the rating agencies. We spent a lot of time educating investors on what is in our guides, selling and servicing guides, you know, how that aspect of the market works. We released performance data on 18 million loans, and investors used that to create models and understand the credit. And I think we found that having that intermediary role was very important to investors.

Senator TESTER. OK. Thank you. And anybody who wants to answer this can. What lessons should we draw from the response of market participants to the enterprises' credit risk sharing transactions? Go ahead, Ms. Davis.

Ms. DAVIS. I will jump in and start. I think we learned certainly that in the current market, which Mr. Palmer pointed out is certainly very favorable to credit risk transfer, we learned that, you

know, investors are interested in taking on mezzanine credit risk on a very high credit quality pool of loans, and we definitely had a very strong response. I think, you know, the one thing that we would keep in mind is that the current market is definitely very favorable.

Mr. BORDIA. I would add that I think initially, when the first deal came out, there was some level of skepticism in the market. And as it became clear that it is going to be more programmatic, investor interest has actually gone up. If you look at the execution, it has been significantly better than the first deal for the second and third deals. So I think obviously to the extent that you can make sure that everyone understands it is going to be a big program and you will continue to see these kind of securities come into the marketplace, it will certainly help.

Senator TESTER. OK. As conceived in the Corker-Warner bill, the FMIC Director would be tasked with approving credit risk sharing transaction structures. Under this construct, we believe that the bond guarantors will take on the bulk of the credit risk required, but also provide the FMIC Director with the flexibility to approve structures based on capital markets' execution. How do you feel about this flexibility? And do you think it is appropriate? Go ahead, Mr. Palmer.

Mr. PALMER. You know, I do think that the flexibility is important. I think, you know, we are in the very early stages of credit risk transfer. Freddie Mac has done two different types of risk transfer structures, Fannie Mae also two different types, three types between the two of us. And we are still in the learning stages, and I think we will continue to be there, and continuing to have that flexibility is important.

Senator TESTER. OK. Thank you all very much.

Thank you, Mr. Chairman.

Chairman JOHNSON. Senator Corker.

Senator CORKER. Thank you, Mr. Chairman, and I thank each of you for being here and for your interest in the topic. I am sure I am going to be redundant. I stepped in from another setting, and I apologize.

In the 1217 bill that many of us have talked about and been involved in and many of the questions end up being centered around, we tried to lay out a situation that does create flexibility, as Senator Tester just mentioned, and looks at various ways of having private capital through a bond guarantor, through credit-linked notes, through A and B pieces, and trying not to be too prescriptive so that all of those are available.

Is it your sense—and I would like to ask all four of you this—that we are better off giving that flexibility and allowing the FMIC Director, should a bill like this pass, something similar, is it better for us to have that flexibility and for us to be able to test each of those as we move along? Or is it better for us to be more prescriptive and eliminate some of those possibilities?

Mr. PALMER. I do think it is very important to have that flexibility. I think today, as I said in my oral statement, it is a very good market for taking on mortgage credit risk. House prices are generally appreciating. The underwriting quality of the loans is very strong. I think as we have seen in previous markets, some-

times the capital markets go away, and we need to have other options available to be able to transfer credit risk in a variety of different markets.

Senator CORKER. OK.

Ms. DAVIS. Yes, I think we would definitely agree that the flexibility is important. Just relating back to the specific transactions that we did, we certainly looked at a variety of different structural options even within the credit-linked note structure, and just specific to these deals, early on we looked at sort of different points of risk to sell and should we sell, you know, 3 percent, 4 percent, 5 percent, the right level. And so a lot of it for us, the analysis came down to this particular pool of loans and, you know, what did we expect the risk to be on this particular pool of loans. And so we felt that, you know, this was the level that was appropriate for this particular pool.

So I think just the exercise that we went through on this transaction showed us that you are going to have kind of different structures that you are going to want to use in response to different market conditions.

Mr. DURANT. We, too, think the flexibility is important, subject, of course, to the comments I made earlier about separating out the loan-level credit risk for the higher-risk loans, having that coverage placed as the loans are originated versus the flexibility of developing credit risk sharing at the security level, once you have made sure that at the loan level the credit enhancement is already there.

Mr. BORDIA. Well, I agree with pretty much everyone. I think flexibility is important. If you are looking at really good quality collateral, then there is no point asking someone to hold 10-percent capital. But then there are also collateral types where the average expected losses are going to be north of 10 percent, and if you have just 10-percent capital cushion for that, it is not going to be enough. So I think flexibility is important. I would also add that while you want to keep the flexibility, you want to be somewhat prescriptive. You do not want to give a lot of leeway in terms of what people can hold or cannot hold.

Senator CORKER. And speaking of that, I have one more question, but you a minute ago sounded somewhat negative on the ability to have the available capital together. If I understood—and I was doing something else at the time, but I think you were talking about fixed income. But if you were seeking private equity, too, and you had clear rules and you had time, is there any question in your mind that with clear rules and time and looking at the combination of all markets, you would have the kind of capital available to have 10-percent capital at risk in advance of any Government guarantee?

Mr. BORDIA. I think over time I think it is certainly possible. If you are looking at a collateral pool which has half a point of loss and you ask them—and you need 10-percent capital, the market will trade whatever, the first 2 or 3 percent as equity, and you should be able to raise the 3 percent to 10 percent at much more attractive levels. So I think to answer your question in short, it is certainly possible, but it will take a pretty long time.

Senator CORKER. And let me just ask one more question, if I could. I assume that the bond guarantors, if, you know, they are

playing—if they are in this arena, they themselves also behind their risk are going to be accessing capital markets. They are going to be using, I think, as you all described a minute ago, they are going to be using credit-linked notes and subordinated components to actually lay off their 10-percent risk. Is that correct?

Ms. DAVIS. Yeah, I think we would agree with that. You know, it is a little hard to extrapolate, obviously, from just three transactions. But I think you can look at the model that we used with these particular security structures where you could have a guarantor who then taps into the capital markets to lay off some of that credit risk when the markets are good. You know, I think the nature of those types of markets is they are cyclical, right? So if you have a guarantor who can then access those markets when they are open, take advantage of, you know, perhaps better pricing for credit when the markets are good and then that becomes a component of their risk management.

Senator CORKER. Well, thank you. And I think it seems like you all are shaking your head up and down, and so without belaboring the Committee, Mr. Chairman, thank you, and I thank each of you for your testimony.

Chairman JOHNSON. Senator Warren.

Senator WARREN. Thank you, Mr. Chairman, Ranking Member Crapo, for doing this.

We have been talking today about two basic ways of transferring credit risk: a structured transaction, here the senior-sub, or an investor takes the credit risk up front and bond insurance, which pays out on the back end if a pool of loans starts to go bad. And it seems like each one of these has some pluses and some minuses as we think them through.

Obviously the nice thing about the senior-sub structure is that the money is there up front to absorb any losses. But from what I understand, that structure is incompatible with the TBA market. So if an investor is going to take on the credit risk of a pool of mortgages, they want to know exactly what the mortgages are that are in the pool. And, of course, that cannot happen in a TBA market.

Is there anybody who disagrees with that?

[Witnesses shaking heads.]

Senator WARREN. OK, good. So we are all in the same place on that. Good.

Well, I do not think the Government should be standing behind structured transactions if those transactions do not work in a TBA market. The TBA market allows borrowers and lenders to lock in a rate in advance, critically important for families, for community banks, for credit unions, for access to mortgages.

Now, bond insurance works with a TBA market, but since it pays on the back end instead of on the front end, the risk is that the bond insurers will not actually have the money to pay off if a whole deal goes south, if a whole tranche goes south. So if the Government is going to depend on bond insurers to stand before the Government guarantee, then the Government is going to have to be very diligent in overseeing those bond insurers to make sure they have enough high-quality capital to cover the risks that they have taken on.

So do any of you have any ideas about the kind of regulatory and oversight burden that this is going to place on the Government?
Mr. Durant.

Mr. DURANT. Sure. So we, of course, look to our existing regulatory environment. That is what we do today. And obviously people point to it and say, "But the bond guarantors active in the residential finance market largely failed in this crisis."

Senator WARREN. Yes, they do say that. For a reason.

Mr. DURANT. And, you know, one of the things we look at as why did that happen is, as I talked about, the separation of the loan-level risk, the individual loan risk, from the overall security risk. Bond insurance was originally designed to guarantee municipal bonds. In 1971, my predecessors at MGIC, they created that business to do that. It was adapted for use in mortgage-backed security financing, and people did not think a lot about the different loan-level risks that are present on individual borrowers versus a municipal bond that is backed by taxpayer funds. Very different kinds of things.

So, first of all, this separation of the loan-level risk from the security risk we think is a very important component of ensuring that the bond guarantor model is going to survive.

Now, as I talked about in my testimony, right now bond insurers, their insurance is regulated by the States. That is the way things work, and unless you want to make changes to McCarran-Ferguson, we kind of have to work within that construct.

That said, I think particularly in the mortgage insurance industry, we have a very good example of how State regulation combined with Federal oversight that OFHEO and now FHFA and Freddie Mac and Fannie Mae has worked quite well. The fact is five of the eight mortgage insurers are still here, and, you know, I think that model has shown that it does work.

Senator WARREN. So, Mr. Durant, your position is there is adequate regulation already in this market, notwithstanding what has happened over the past—

Mr. DURANT. I think—

Senator WARREN. Notwithstanding the facts?

Mr. DURANT. —the changes that are being made are addressing a lot of those concerns. So within the mortgage insurance—

Senator WARREN. So you are saying there needs to be more regulation.

Mr. DURANT. Different regulation, yes.

Senator WARREN. All right. Mr. Bordia, did you want to add anything?

Mr. BORDIA. Yes, I think there are just a couple of things that I wanted to add.

So, one, to the extent that you have bond guarantors guaranteeing some of these securities, either do you want the capital that is standing behind sit in some separate reserve account or something like that? Because if insurers or bond guarantors are in five or six different lines of businesses and something bad happens somewhere else, then it is going to be a problem. The money is not going to be around to take care of the losses that come from Fannie Mae or Freddie Mac or any such future entity.

Senator WARREN. So we need some kind of regulatory structure around this, and this is——

Mr. BORDIA. Yes. Either you ensure that the cash is sitting somewhere and so you raise like 2-, 3-percent capital, then you raise a lot of debt, but that, for example, can only be used to cover losses from these entities; or you just set aside money right up front to take care of these losses.

Senator WARREN. So that brings me then to the final question and how these tie together, and that is, is there a viable alternative to the two approaches, structured deals and bond insurance? What about the proposals from the Center for Responsible Lending and the New York Fed for one or more mutuals that issue and guarantee mortgage-backed securities? Any thoughts on that, a third way to go about this that does not have this kind of regulatory structure but still supports the TBA market?

Mr. DURANT. I think those still will require a regulatory environment of some kind, and really, for example, I am more familiar with the New York Fed proposal. I think the idea of cooperatively owned and operated entities the way they have suggested it actually fits in quite well in the S.1217 structure. Issuers guaranteeing their own securities is done every day. It is called Ginnie Mae. And so we already know what that looks like and how it needs to be managed.

Senator WARREN. Although part of what we get, of course, in a mutual is that, in effect, they regulate each other. They become self-regulating instead of the——

Mr. DURANT. If they are set up correctly, right.

Senator WARREN. ——“catch me if you can” of other forms of regulation. So thank you. I appreciate it, Mr. Chairman. You know, I think this is a really central question when it comes to housing finance. Who is going to take on the credit risk of all these mortgages? And it is really critical we get this right, so thank you.

Chairman JOHNSON. Senator Warner.

Senator WARNER. Thank you, Mr. Chairman. First of all, echoing what some of my other colleagues have said, thanking you and the Ranking Member for continuing to aggressively move these hearings forward, and we have gone through snowstorms and shutdowns, and obviously the focus of this Committee is to take on certain international issues as well. I know Senator Corker has been involved, and others. So I am very grateful that we have kept an aggressive schedule, and my hope is that you and the Ranking Member take some of the work that was started and reshape this that we can very, very early on in the New Year get a piece of legislation marked up and out of this Committee.

Mr. Bordia, I think you responded a bit to—I think you responded affirmatively to Senator Corker that, you know, because of this variety of tools that would be out there, we could get to that 10-percent level, and I would simply point out as well that there are other proposals out there that get rid of any Government role at all that would require exponentially higher amounts of private capital, would you not agree, if you get rid of the Government role entirely, as some have proposed?

Mr. BORDIA. Again, I am not sure, I think, what the right capital required is. If you look at the total GSE portfolios, I am pretty cer-

tain losses on that \$5 trillion portfolio are not \$500 billion, and they have clearly gone through 2006 and 2007. So I am not sure, I think, what the right number is. What I was trying to say is that it might not be a good idea to have the same amount of capital, and even if you require \$100 or \$200 billion of capital that has to come from the private markets, it will take a lot of time.

Senator WARNER. I believe what you have also said and I think what some of us believe is if there has been some overshooting and an extra buffer to make sure, again, that the taxpayer does not get hit with another \$188 billion bill the way we did last time and now some people coming back and saying, you know, that risk exposure the taxpayer took should be returned at a 1:1 rate and that somehow makes everything whole, as a former VC, that would not be a return I would be happy with. But if we do have an abundance of caution here, there will be an ability, I think, to tranche part of that capital out, and as you said earlier—

Mr. BORDIA. Yes. You cannot raise all of the demand as equity capital.

Senator WARNER. Right. It would be priced in different ways. I think Senator Warren has raised, you know, some good components about this, the question about how we get this insurance component piece right, and, you know, I would point out that in S.1217 we do have a mutual. We would still—the concept of that mutual to service the portion of the market to make sure there is quality of pricing, we still envision the guarantee piece, the private capital loss piece being perhaps separate from that, or separate from that mutual, but we think we have got that in the toolbox.

I guess one of the things, Mr. Durant, that we have pushed—and I think now you have had some concern about—is you pointed out in your testimony that you thought it was appropriate that the insurance function get separated from the loan level, from the security level, and that if we are—you know, going forward, and particularly if an entity is in a variety of these lines of business, we are going to have to have, you know, separate levels of characterization, separate structures so we do not have this overlapping problem where, if the string starts to get pulled on one of these lines of business, it does not bring down the whole house. Do you want to—and I do believe that it will require—and we have put some requirements in S.1217 to make sure—I know there is some pushback from you all on this, but that you do not have that kind of overlapping coverage.

Mr. DURANT. Yeah, I think our concern would be within a parent company holding structure, why wouldn't you allow a bond guarantor to also, you know, be a sibling to a mortgage insurer? As long as they are separately capitalized entities, we think that is the right way to do those things. Merging the loan-level mortgage insurance exposure with the security-level bond exposure into a singly capitalized entity or, as Sandeep said, having that entity also be exposed to other kinds of insurance risks clearly is not going to accomplish what you want to accomplish here. We think the monoline requirement is a very important aspect of ensuring that capital is brought into these entities for the express purpose of funding mortgages through the very long cycle, and you want to keep the capital within those entities dedicated to that task.

Senator WARNER. And we do envision the FMIC would be playing, again, a very important role in conjunction with your State insurers to make sure that gets——

Mr. DURANT. Absolutely. As the ultimate counterparty, they are the ones who are saying, look, we are the ones holding the bag for you guys, you——

Senator WARNER. My time is about up. Let me make one other point. I just want to follow up on something that Senator Crapo raised in his line of questioning, which was how do we make sure—and, again, Mr. Palmer and Ms. Davis, you may want to comment on this. If we are going—we all recognize—and one of the things we have tried to build in as a transition time a ramp-up period so that we can get more of this private capital in place, and how we can ensure that we do not put unnecessary regulatory, accounting, or other burdens to make this transition. We have talked about the concern that some of the entities had about registration with CFTC. I know there are some concerns in terms of tax treatment around REITs. I know there are also accounting issues.

One of the things I would ask for the record would be whether from the experience you have had in the transactions so far and looking forward as you expand that universe, what are those items that we could perhaps look at to minimize the flow of private capital coming in to play this very, very important role in terms of protecting the taxpayer. And, again, with the discretion of the Chair, if they would let them answer that question, then I will be finished.

Mr. PALMER. Yes, first, we would love to be able to work with you and your staff on these issues. I think we definitely have learned a lot over the last 2 years, and I think as we continue to grow and expand these programs, I anticipate that we will continue to learn more and that we can help articulate better some of these issues that should be addressed.

Senator WARNER. Thank you, Mr. Chairman.

Chairman JOHNSON. Thank you again to all of our witnesses for being here with us today and helping the Committee better understand the options for increasing private capital's role in the housing finance system.

Chairman JOHNSON. This hearing is adjourned.

[Whereupon, at 3:45 p.m., the hearing was adjourned.]

[Prepared statements, responses to written questions, and additional material supplied for the record follow:]

PREPARED STATEMENT OF KEVIN PALMER

VICE PRESIDENT, STRATEGIC CREDIT COSTING AND STRUCTURING, FREDDIE MAC

DECEMBER 10, 2013

Chairman Johnson, Ranking Member Crapo, and Members of the Committee, thank you for inviting me to appear today. I am Kevin Palmer, Vice President of Strategic Credit Costing and Structuring at Freddie Mac. I head the business unit with primary responsibility for the development and execution of the credit risk sharing transactions that are the subject of today's hearing.

In my statement, I summarize the risk-sharing transactions we have undertaken to date, discuss the lessons we have learned from these transactions, and outline our future risk sharing plans.

I would like to highlight three points from my statement that I believe will be useful as you consider these issues:

- First, we have been very encouraged by strong investor interest in our credit risk sharing offerings to date. However, it is important to note that conditions today are highly favorable for investment in mortgage credit risk. We have seen from recent history that investors can and will leave the mortgage market when conditions are less favorable. So I caution that it will take some time to determine the level of long-term sustainable investor interest in mortgage credit risk sharing, particularly during market and economic downturns.
- Second, we have encountered a number of regulatory, tax and accounting issues that have either affected investor interest in participating in our credit risk sharing transactions or influenced our choices of particular structures for those transactions. We believe Congress should consider these and other similar issues as it determines the role that credit risk sharing instruments can play in any future housing finance system.
- Finally, we designed our credit risk sharing transactions to ensure they are cost effective and preserve forward markets.

Freddie Mac's Progress Under Conservatorship

The Freddie Mac of today is not the company that existed prior to conservatorship. We have a new management team, including new chief executive officer, chief financial officer, general counsel, chief risk officer, chief compliance officer, chief administrative officer, head of human resources, and chief information officer. In addition, we have a new head of every business line: single-family, multifamily and investments. Most of these leaders are new to Freddie Mac, while a few are in new roles since conservatorship. At the same time, we have retained many employees with significant experience in and knowledge of the mortgage finance industry.

Freddie Mac is highly mindful and appreciative of the taxpayer support we have received. We are focused on using this support wisely and effectively to provide liquidity to the home mortgage market, help at-risk borrowers avoid foreclosures, and fulfill the objectives of the conservatorship. Let me offer a few examples:

We helped more than 11 million families buy, refinance, or rent a home since 2009: Our mortgage purchases enabled 7.5 million families to refinance into lower interest rate home mortgages. For loans we refinanced during 2013, families are saving an average of \$3,400 per year. We also funded home purchases for 1.9 million families and rental housing for 1.5 million families.

We helped 913,000 at-risk families avoid foreclosure since 2009: By preventing avoidable foreclosures, we not only help at-risk families but also stabilize and revitalize neighborhoods. More than 475,000 of these families received loan modifications, saving each family an average of \$5,220 per year. We also are implementing a Federal Housing Finance Agency (FHFA) directive to substantially improve how servicers work with delinquent borrowers.

We implemented stronger credit standards, resulting in a significantly improved book of business: Our focus is on helping borrowers own homes that they can afford and keep. As of September 30, 2013, mortgages we purchased after 2008 comprise 73 percent of our single-family credit guarantee book of business but only 8.6 percent of our credit losses. Even with our preconservatorship book of business, Freddie Mac's single-family serious delinquency rate—2.58 percent as of September 30—is less than half the mortgage industry average of 5.88 percent (as of June 30).

By the end of 2013, we will have paid \$71.345 billion in dividends to taxpayers: This slightly exceeds the \$71.336 billion in U.S. Treasury funds we have drawn to date. As explained in our November 7, 2013, financial release, Freddie Mac's payment of dividends does not reduce the balance of prior draws of Treasury funds received, and Treasury retains a liquidation preference of \$72.3 billion on Freddie Mac's senior preferred stock.

We could not have achieved these results without the support we have received from FHFA, Treasury and the American taxpayer. But these results also attest to the hard work, commitment, and expertise of our employees.

Credit Risk Sharing Initiatives

Freddie Mac began analyzing mortgage credit risk sharing structures in early 2011 as a way of removing some of the risk on our books. This included studying both the economics and the operational issues involved in various risk transfer options and structures. This work helped prepare us for FHFA's directives in its 2012 and 2013 scorecards to begin undertaking credit risk sharing transactions. The 2013 scorecard set a target for us to undertake transactions involving single-family mortgages with at least \$30 billion in unpaid principal balances. FHFA specified that we must conduct multiple types of risk sharing transactions to meet this target. Such transactions could include expanded mortgage insurance, credit-linked securities, senior/subordinated securities, and other structures. In addition to reducing our credit risk exposure, the risk sharing goal is also intended to bring more private capital into the market and demonstrate the viability of multiple types of risk transfer transactions involving single-family mortgages.

Freddie Mac has undertaken three such transactions during 2013. Our first transaction, announced in July, was an offering of Structured Agency Credit Risk (STACR) Debt Notes. We just settled a second STACR offering on November 12. Also on November 12, we entered into a reinsurance transaction. The aggregate unpaid principal balances of the mortgages involved in these three transactions will include more than \$30 billion that we believe qualifies toward FHFA's scorecard.

Common to these three transactions are several objectives:

- Reduce Freddie Mac's, and therefore taxpayers', exposure to the credit risk of our mortgage purchases by transferring a portion of that risk to private investors.
- Bring new credit investors into the mortgage market.
- Create products that are scalable and sustainable over time.
- Preserve the cost efficiencies of a forward market.

STACR Debt Notes

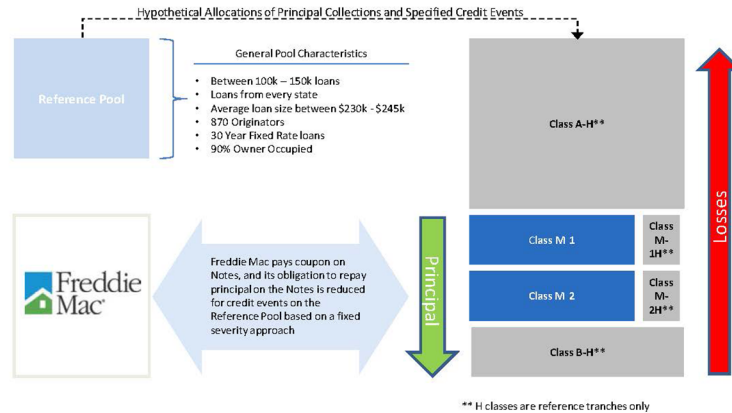
STACR Debt Notes allow Freddie Mac to transfer credit risk from recently acquired single-family mortgages to credit investors who invest in the notes. Interest and principal payments to investors are determined by the delinquency and principal payment experience on that group of newly guaranteed mortgages, known as a reference pool. Although structured as debt notes that are unsecured general obligations issued by Freddie Mac, the transaction is similar to a credit linked note, which allows us to take advantage of the cost efficiencies of the TBA market.

We structured STACR Debt Notes to attract investors by providing a large and highly diversified pool of loans in the reference pool. Diversification is attractive to credit risk investors because it reduces idiosyncratic risk stemming from concentration in specific geographical areas, in originator quality, and servicer practices. The reference pools for the first two offerings together included more than 200,000 high-quality loans, which are diversified based on geographical, originator, servicer, and other risk factors, representing more than \$50 billion in unpaid principal balance. These pools consist of a subset of 30-year fixed-rate single-family mortgages acquired by Freddie Mac in two recent quarters. Most other securities that transfer mortgage credit risk, by comparison, are based on a smaller pool of mortgages, generally less than 1,000 loans.

Freddie Mac remains the master servicer in the STACR transactions, retaining control of the servicing of the loans in the reference pools. This is beneficial because the loans will be subject to Freddie Mac servicing guidelines, allowing us to maintain our strong loss mitigation support to borrowers. The structure provides for a defined loss transaction—when a borrower is 180-days delinquent (behind by 6 months) the bond holder takes the defined loss. The structure also allows Freddie Mac to manage the assets of the pool after 180 days. Freddie Mac retains some risk exposure (at least 5 percent of the losses), assuring investors of our aligned interests. This “skin-in-the-game” is important for servicing and loss mitigation control. To further demonstrate our alignment of interest, Freddie Mac also retained the first-loss risk position in the two STACR offerings. Retaining that first-loss position helped investors get comfortable with this new type of credit risk sharing instrument, and helped make the structure more economically attractive.

Our first two STACR offerings received positive market responses. About 50 broadly diversified investors participated in each offering, including mutual funds, hedge funds, REITs, pension funds, banks, insurance companies, and credit unions.

STACR General Overview



Additionally, our STACR transactions had little or no impact on the TBA market. The TBA market provides the means for lenders to sell conforming loans into the secondary market before they are originated. This enables lenders to better manage the risks of 30-year fixed-rate loans and allows borrowers to lock in mortgage rates up to 90 days in advance of closing.

What We Have Learned From Our STACR Offerings

Based on our initial STACR offerings, we can identify several issues and challenges:

Limits to investor appetite: While our initial offerings received positive market responses, this does not guarantee that future offerings will receive equal levels of investor interest. Investor appetite for a particular asset class at any given time depends on a variety of factors, including broad economic and market conditions and returns offered by other asset classes. Our first two STACR offerings took place during very favorable conditions for investing in mortgage credit risk. For example, house prices are generally appreciating and credit quality is high by historical standards. As we have seen from recent history, investors will leave the mortgage market when risks and returns are less favorable. While we believe we are well on the road to creating an attractive and scalable investment product, it will take some time to determine the level of long-term sustainable investor interest in STACR Debt Notes as an asset class, particularly during market and economic downturns.

Credit ratings: Our first transaction was not rated by a rating agency. In the course of structuring it, we found investors had differing views over the need for a rating. In the end, we decided against obtaining a rating because doing so would have slowed our ability to complete two transactions this year. This somewhat limited investor participation and impacted the pricing on the first transaction. In the second transaction, one of the two tranches was rated Investment Grade by Moody's and Fitch. The pricing on this transaction was substantially improved. While we attribute most of this improvement to greater market acceptance and familiarity with STACR Debt Notes, obtaining a credit rating also helped.

Tax treatment: Current tax laws affect investor interest in STACR transactions. Real Estate Investment Trusts (REITs), for example, must primarily invest in real estate assets, including interests in mortgages. Because the STACR transactions were general obligation debt issuances and not secured by interests in mortgages or real estate assets, they did not qualify as real estate assets for REIT purposes. While STACR Debt Notes could be held by REITs, there are restrictions on the amounts. Also, Real Estate Mortgage Investment Conduits (REMICs) cannot hold STACR Debt Notes as collateral because the notes are not secured by real property or interests in mortgages and are not interests in mortgages secured by real property.

Accounting treatment: Investors in STACR Debt Notes will mark their investments to market under accounting rules, and this will discourage some investment

in them. Some large investors, such as insurance companies, are not interested in assets that are marked-to-market because this would create additional income statement volatility. Freddie Mac also faces increased income statement volatility from mark-to-market treatment of our STACR issuances.

Regulatory hurdles: A Commodity Futures Trading Commission (CFTC) regulation played a role in our decision to structure STACR Debt Notes as an unsecured general obligation instead of a credit linked note. That regulation requires Freddie Mac to register with the CFTC as a Commodity Pool Operator and a Commodity Trading Advisor or to seek a no action letter from CFTC in order for us to issue credit linked notes. Registering with the CFTC likely would have required us to create a subsidiary company—a complicated matter given our being in conservatorship. Further, if we were to seek a no action letter as issuer, our understanding is that some investors would be required to register with the CFTC or require a no action letter in order to purchase credit linked notes we would issue. CFTC's rule did not anticipate this type of offering, and changes to the rule would help. In the meantime, Freddie Mac, in concert with FHFA, continues to work with CFTC to ensure our full compliance.

Our experiences with these tax, accounting and regulatory issues suggest that policy makers, in the course of legislating housing finance reform, should carefully consider how these and other similar issues can affect the ability and willingness of private investors to assume mortgage credit risk.

Despite these challenges, we believe Freddie Mac's STACR transactions to date have met our objectives and help us meet FHFA's scorecard objectives for 2013.

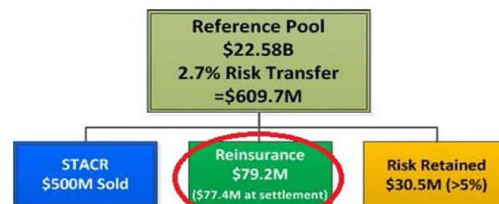
Reinsurance Transaction

Freddie Mac announced on November 12 that we had entered into a reinsurance-based credit risk sharing transaction. We obtained an insurance policy underwritten by Arch Reinsurance Ltd. to cover up to \$77.4 million of credit losses for a portion of the credit risk Freddie Mac retained from the reference pool in the first STACR transaction. The transaction with Arch enabled both parties to leverage this reference pool, and the associated disclosures and due diligence.

This new insurance coverage is intended to attract new sources of private capital from nonmortgage guaranty insurers and reinsurers interested in assuming a portion of the credit risk on specified portions of our single-family mortgage loan portfolio. Reinsurance companies are large diversified companies that specialize in managing a variety of risks. Freddie Mac regards reinsurance companies as a promising new source of capital for mortgage credit risk transfer.

Our experience with conducting this first reinsurance transaction has led us to conclude that there is interest at this time for U.S. mortgage credit exposure among the reinsurance community. Accordingly, we see potential to build a risk sharing product targeted at reinsurance companies that meets our objectives of transferring credit risk, bringing new investors into the market, creating repeatable and scalable products, and preserving the cost efficiencies of the TBA market. Of course, the level of long-term sustainable interest by reinsurance companies in mortgage credit risk sharing transactions, particularly during market and economic downturns, remains to be seen.

2013 Reinsurance Transaction



All values are based on original UPB

Risk Sharing Plans Going Forward

In addition to conducting additional STACR and reinsurance transactions, we are looking at two other options for credit risk transfer. The first is risk retention by mortgage originators who sell mortgages to us through recourse agreements. The key challenge to recourse transactions is that sellers retain these obligations on their balance sheets. This has regulatory capital consequences for regulated financial institutions.

A second option we are exploring is a senior-subordinate securitization. While doing this type of securitization would not allow for TBA securitization on these loans under current rules, this structure is common, particularly for jumbo and other nonconforming loans.

Conclusion

As Congress determines the future structure of the housing finance system, Freddie Mac will remain focused on providing liquidity to the home mortgage market, helping at-risk borrowers avoid foreclosures and protecting taxpayers' investment in the company. This includes working with FHFA to develop new and innovative approaches and products to transfer credit risk from taxpayers to private investors.

Thank you again for this opportunity to appear today.

PREPARED STATEMENT OF LAUREL DAVIS

VICE PRESIDENT FOR CREDIT RISK TRANSFER, FANNIE MAE

DECEMBER 10, 2013

Chairman Johnson, Ranking Member Crapo, and Members of the Senate Banking Committee, thank you for the opportunity to testify today. My name is Laurel Davis and I am the Vice President for Credit Risk Transfer at Fannie Mae.

I appreciate the opportunity to share with the Committee information on the credit risk transfer transactions that Fannie Mae conducted this year. My testimony today will address how those transactions were structured and brought to market and the results of the transactions.

Background

Before I address the specific transactions, I think it would be helpful to provide additional background on how Fannie Mae manages credit risk, the credit risk that we currently hold and how we have sought to reduce this risk substantially during conservatorship. This is important because what we learned from these particular transactions was that investors are willing to purchase mezzanine credit risk on a high quality pool of loans if they receive a yield that meets their investment targets and where the credit is actively managed by an intermediary.

In order to assess the risk they were purchasing, potential investors in our Connecticut Avenue Securities transaction (C-Deal) and our counterparty in the mortgage insurance (MI) transaction received significant information about our credit policies, our monitoring of lender operations, their exposure to the sellers' representations and warranties, and our reviews of loan origination quality. Investor comfort with our processes and our ability to enforce representations and warranties facilitated the investor demand in the transactions. While this testimony will not address our servicing standards and oversight of servicers, those factors play a strong role in reducing our risk of loss and are important considerations for investors evaluating the credit risk on Fannie Mae loans.

Because we accept the credit risk on securities we guarantee, we have a rigorous process for managing this risk. We do so through both the pricing of loans based on the risk such loans entail and the establishment of underwriting standards that lenders with whom we do business must follow. Our Selling Guide, which is extensive, is our legal contract with lenders. It sets forth the underwriting standards to which lenders are required to adhere.

Our standards are not static. We revise them continuously based on our analysis of the performance and quality of our acquisitions and our existing book of loans, changes in market conditions and new issues that might arise. We also review the loan origination processes of our lender customers to ensure that their controls are working properly. During conservatorship, Fannie Mae has made numerous changes to our analysis of credit risk and to our underwriting and eligibility requirements to reduce our credit risk. Some of the significant changes include:

- Creating external tools and internal risk models to improve assessment of collateral value;

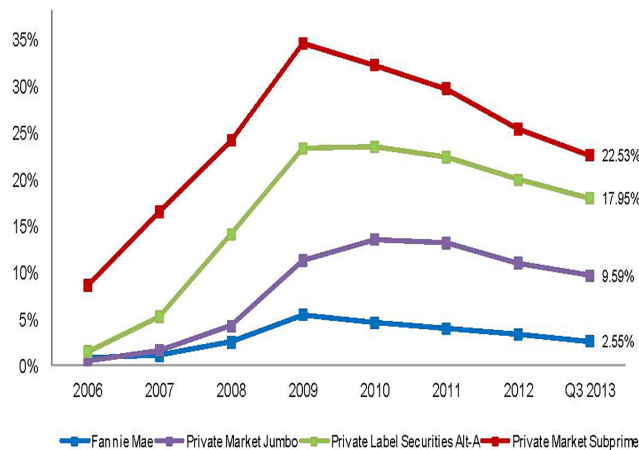
- Creating a process and risk models to assess the quality of new loan acquisitions, track defect rates and enforce contractual rights soon after delivery to mitigate risk;
- Standardizing our credit policy by eliminating most negotiated credit terms with specific lenders;
- Tightening our underwriting and eligibility requirements for higher risk products, including interest only loans and adjustable-rate mortgage loans;
- Implementing a minimum credit score of 620; and
- Eliminating contract terms that would allow delivery of Alt-A loans or other reduced-documentation loans.

As a result of our efforts, and improvements in market conditions, our serious delinquency rate has fallen dramatically (see Illustration A). This rate peaked in February 2010 at 5.59 percent and has since fallen to 2.55 percent as of the end of the Q3 of this year. Even at its highest point, our serious delinquency rate was substantially lower than loans in private label securities or held on bank balance sheets.

In addition, the loans we have acquired since 2009 have performed well. The serious delinquency rate for loans acquired since January 2009 is 0.32 percent. These new, well-performing loans now make up approximately 75 percent of our total book of business.

The performance of these loans and improving conditions in the housing market are two of the primary reasons for our recent financial performance. We have recorded seven straight quarters of profit and, as of December 31, we will have paid almost \$114 billion in dividends to the Treasury Department versus total draws of approximately \$116 billion.

Illustration A: Single-Family Serious Delinquency Rates



Credit Risk Sharing Transactions

Our credit risk sharing initiatives are aimed at reducing our retained credit risk, thereby reducing our footprint in the mortgage market and providing a way for greater private investment in mortgage credit risk.

It should be noted that Fannie Mae's Charter requires that there be private risk ahead of Fannie Mae's guarantee for high loan to value (LTV) ratio loans or loans with less than 20-percent downpayment. This has not changed during conservatorship. For all loans with LTV ratios greater than 80 percent, our charter requires that Fannie Mae seek credit enhancement. This is predominantly done through the

required purchase of mortgage insurance through regulated insurers capitalized by private capital. Our standard coverage requirements, however, require greater protection than just the first 20 percent of the property value. Loans with LTVs in excess of 80 percent generally have coverage that protects the company down to 68 percent to 75 percent of the loan amount.

With that background, I would like to turn now to the two transactions we conducted this year to transfer additional credit risk to other market participants—our C-Deal transaction and our mortgage insurance risk transfer deal. The transactions have a few key similarities. First, in both transactions, Fannie Mae retained a first-loss credit risk position vis-a-vis investors, while selling mezzanine risk to investors to cover “unexpected losses” after that first-loss risk piece is exhausted. Mezzanine risk is located between the first loss and the top loss risk levels. For both transactions, the first-loss piece we retained covered at least 2 times what we modeled as our expected losses on the loans underlying the transactions. Fannie Mae also retained the risk of catastrophic loss, which was sized at greater than what was experienced during the recent housing crisis.

Second, both transactions were aided substantially by the fact that an intermediary stood between investors and originators, in this case, Fannie Mae. Investors did not need to underwrite the credit themselves, ensure that the underlying loans are properly serviced or make certain that representations and warranties with originators are enforced. In these particular transactions, this intermediary role allowed the 77 investors involved in our credit-risk note transaction to rely on Fannie Mae’s credit policies, underwriting standards, lender oversight requirements, and servicing standards rather than understanding the standards of more than 1000 lenders with whom we do business. Moreover, Fannie Mae serves as an ongoing and active credit risk manager on behalf of itself and the investors.

While we have purchased pool mortgage insurance policies for two decades, the C-Deal transaction was a successful first attempt to transfer portions of our credit risk to private securities investors. We intend to engage in additional transactions to learn more about investor appetite for credit risk.

These two transactions were positive first steps in transferring credit risk, but it is early in the process and therefore difficult to extrapolate the extent to which broad investor demand exists for securities with residential mortgage credit risk or what yield might be required.

Connecticut Avenue Securities (C-Deals)

On October 15, 2013, Fannie Mae priced its inaugural credit-risk note transaction under its Connecticut Avenue Securities series, also known as C-Deals. This first transaction settled on October 24, 2013.

Fannie Mae’s C-Deals were structured to meet certain program goals:

- First, to provide an additional avenue to manage the credit risk of our guaranty business, in addition to our active management of credit risk as discussed above;
- Second, to create a program that is sustainable and scalable for Fannie Mae;
- Third, to explore the most cost efficient means for transferring credit risk;
- Fourth, to not interfere with how lenders currently sell loans into the secondary market;
- Finally, to have no impact on how a loan is serviced.

Loans included in this risk sharing transaction will be serviced in the same manner as all other loans in our book. Servicers have no knowledge of which loans are in a C-Deal reference pools and which are not.

By design, Fannie Mae’s C-Deal is structured very similarly to Freddie Mac’s two STACR offerings, the first of which closed in July and the second in November. There are slight differences between Fannie and Freddie’s deals. Some differences were due to the response to market feedback, and others were due to how Fannie Mae evaluated the cost/benefit trade-off of particular deal features.

The C-Deal notes are debt issuances of Fannie Mae. One of the main differences between C-deal series debt and Fannie Mae’s standard debt is that investors in C-Deals may experience a full or partial loss of their initial principal investment, depending upon the credit performance of the mortgage loans in the related reference pool. Another difference is that the repayment of C-Deal notes is tied to the credit and prepayment performance of a reference pool of loans. The reference pool for our first transaction included approximately 112,000 single-family loans with an outstanding unpaid principal balance of \$27 billion, which represented about 12 percent of our total acquisitions for Q3 2012.

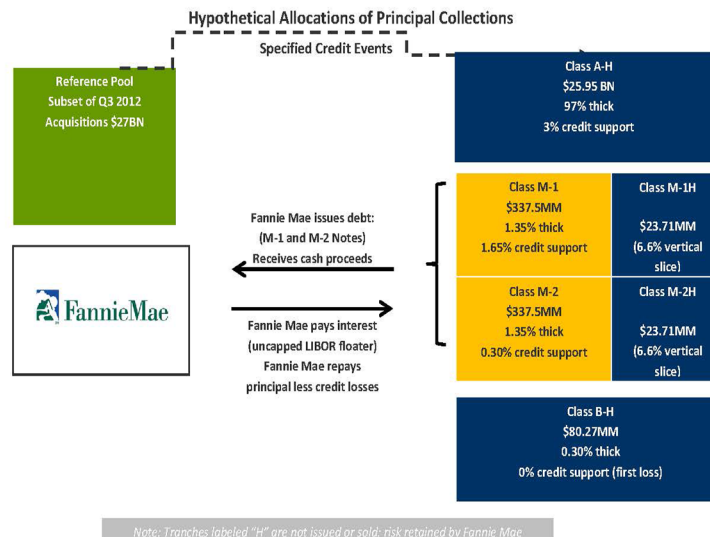
To arrive at the pool, we applied certain selection criteria to the entire population of loans acquired in Q3 2012 to create an eligible population of loans. For a loan to be included, it had to be: (1) a 30-year fixed-rate mortgage; (2) not a HARP loan; (3) with an LTV between 60–80 percent; and (4) current in terms of payments since acquisition. From the eligible population, we used a random selection process to derive the reference pool. By only referencing the loans, they remain in the MBS pools, thereby avoiding any disruption to the TBA market.

If the loans in the reference pool experience credit defaults, the investors in the C-Deals may bear losses. Credit defaults occur in the C-Deal when a loan in the reference pool reaches 180 days of delinquency, a short sale, a third party sale, a deed-in-lieu, or an REO (Real Estate Owned) disposition occurs prior to 180 days of delinquency.

In the first transaction, Fannie Mae retained the first-loss position and holds both the catastrophic risk and a vertical slice of the transaction (see Illustration B). The first-loss piece of the structure is intended to cover a multiple of our expected losses on the underlying loans. We decided to hold the first-loss piece for a number of reasons. First, any securities that represented a first-loss position may not have been considered “debt” for tax purposes and could carry significant tax consequences to potential investors. Second, given that this was a new program, we believed that retaining the first loss would make the transaction easier for investors to understand, model and price. Lastly, it was unclear if private investors would be willing to purchase the first-loss position at pricing that made economic sense for Fannie Mae. However, Fannie Mae may choose to sell the first loss in subsequent transactions if the economics are appropriate and the associated regulatory issues are resolved.

In addition, we sold two classes of mezzanine risk to the market in order to shed the risk of unexpected losses on the underlying loans. Fannie Mae retained the catastrophic piece in the structure, which is a multiple of a stress scenario based on the recent financial crisis experience. Finally, we kept a roughly 6-percent vertical slice of the mezzanine risk sold to the market. This was done to align our interests with investors and give them confidence that we will diligently service the loans in the reference pool so as to limit losses to both investors and Fannie Mae.

Illustration B: Connecticut Avenue Securities: Deal Structure for CAS 2013-C01



The mezzanine risk that we sold was comprised of \$675 million of notes split evenly between a senior and junior class. The senior class of notes, otherwise known as M-1 notes in the marketplace, received an investment grade rating of BBB- from

Fitch Rating Agency. These notes were priced at 1-month LIBOR + 200 basis points. The investment grade rating on the M-1 notes opened up investor participation to a wider variety of accounts, and we believe this will help promote secondary market liquidity.

The junior class of notes, otherwise known as M-2 notes in the marketplace, priced at 1-month LIBOR + 525 basis points. Fannie Mae did not pursue a rating on the M-2 notes. We did not receive strong feedback from investors that a rating on the M-2 notes would be particularly important. Both notes were issued with 10-year final maturities.

A diverse group of 77 investors participated in the offering, including asset managers, mutual funds, pension funds, hedge funds, insurance companies, banks and Real Estate Investment Trusts (REITs).

Fannie Mae has disclosed details of our credit risk sharing activities on our Web site at fanniemae.com. Loan level data, such as interest rate, LTV and original debt to income ratio, was provided on the reference pool as part of the initial disclosure. This loan level data, as well as ongoing performance on the transaction, will be updated monthly.

We considered other transaction structures, including a senior-subordinate cash transaction, or “cash senior/sub”, and a credit-linked note transaction. As it relates to a cash senior/sub, we closely examined the use of this structure to transfer credit risk. In a cash senior/sub structure, loans must be deposited into a trust and therefore could not be in TBA securities. There are several reasons why we decided not to pursue this structure. First, compared to the structure we used, the cost of doing a cash senior/sub transaction would have been greater. Second, a cash senior/sub structure could present scalability issues. In a cash senior/sub structure, the loans themselves are sold and thus there is a transfer of both interest rate and credit risk. By contrast, in a credit-risk note structure, only credit risk is sold, since the interest rate risk was previously conveyed in the TBA markets. Accordingly, if Fannie Mae had used a cash senior/sub structure to transfer credit risk for the same amount of loans as occurred in the first transaction, we would have had to sell \$27 billion of securities backed by mortgage loans, as compared to selling only \$675 million in credit securities, given that the loans had already been funded through the MBS market. Lastly, a cash senior/sub structure could introduce a number of operational inefficiencies for lenders compared to how they now conduct business.

With a credit-linked note structure, there are a variety of outstanding regulatory issues. As alluded to in the press, these issues include the impact of Commodity Futures Trading Commission (CFTC) regulations and whether Fannie Mae and investors would need to register with, and be regulated by, the CFTC. In addition, there are certain issues under proposed conflicts of interest rules being considered by the Securities and Exchange Commission, as well as potential tax issues for certain investors under Internal Revenue Service regulations. These regulatory concerns, and potentially other issues, will need to be resolved prior to this type of structure being a viable option.

We gained several insights from the C-Deal transaction. First, as noted above, in this particular transaction, having an intermediary that served as an active credit manager was important to potential C-Deal investors. Our comprehensive approach to credit risk management helped to build market reception for the C-Deals well before the transactions took place.

Second, it is essential to be transparent and provide detailed information to investors. The rollout and launch of the C-Deals were designed to provide transparency to the marketplace on our requirements and processes. Over the course of 2 years, Fannie Mae held extensive discussions with investors and engaged in a road show to assess the market appetite and structure preferences. It was also critical that we provided historical loan-level credit performance data to investors on over 18 million loans acquired by Fannie Mae over the past 10 years so that investors could make their own assessment of expected loan performance.

Lastly, we learned that in these particular market conditions, investors will buy mezzanine risk on a high quality pool of loans if they receive a yield that meets their investment targets.

It is too early in the process to reach further conclusions from these transactions. Fannie Mae's next transaction is tentatively scheduled for January 2014. This will be a debt issuance deal that references a pool of loans and will be very similar to Fannie Mae's October deal. The reference pool will be comprised of single-family loans acquired in Q4 2012 with the same criteria used in our first deal.

Mortgage Insurance (MI) Risk Transfer Deal

After a competitive bidding process, Fannie Mae entered into a transaction with National Mortgage Insurance Corporation (“National MI” or “NMI”) to provide cred-

it risk coverage on over \$5 billion in single-family mortgages. The agreement was reached on July 15, 2013, and coverage went into effect September 1, 2013.

The MI risk transfer deal covers 2 percent of the loans acquired by Fannie Mae in Q4 2012, each of which had an original LTV of 70–80 percent. These loans were not HARP refinances nor had any credit enhancements. None of these loans were covered by mortgage insurance prior to the commitment with NMI.

The coverage was provided in the form of a “pool insurance” policy, a form of insurance that we have utilized since the mid-1990s, to enhance the credit of certain segments of our acquisitions. The pool insurance policy that we negotiated with NMI will result in Fannie Mae’s loan-level exposure on the covered loans being reduced to approximately 50 percent of the original property value, subject to a pool deductible amount and an aggregate pool loss limit, as explained below. The pool insurance policy sunsets after 10 years.

Similar to the C-Deal transaction, Fannie Mae will be responsible for the first losses on the pool. We are insuring for “unexpected losses” through the establishment of an aggregate pool deductible. The deductible was set at 20 basis points of the initial balance of the pool, or approximately \$10.3 million of initial losses for which Fannie Mae will be responsible.

The insurance policy will cover the next \$90 million of claimable losses. The aggregate pool loss limit was set to 2 percent of the initial balance of the pool. At an approximate \$5.17 billion initial pool balance, the aggregate pool loss limit is approximately \$103 million, including the deductible layer. Thus, once aggregate claimable losses on the pool of loans exceed approximately \$103 million, the policy would terminate. Fannie Mae would be responsible for losses in excess of the pool loss limit. The aggregate pool loss limit was set to a level that exceeds our projected losses in a stress scenario comparable to the recent experience (2006–2012).

This pool insurance credit enhancement has several advantageous features. First, it will preserve the ability for lenders and Fannie Mae to pool mortgage loans into a highly liquid TBA market. This will enable the current efficient origination process, allow borrowers to lock financing in advance and lenders to hedge that interest rate risk, and lower mortgage rates for borrowers because of the liquidity of this TBA market. A second advantage is that the mortgage insurance policy form for the transaction preserves Fannie Mae’s ability to pursue all appropriate and needed loss mitigation which Fannie Mae deems acceptable, e.g., loan modifications and short sales. Thus, servicers follow standard Fannie Mae servicing protocols and service these loans as they would other loans, irrespective of the credit enhancement.

We solicited insurance bids from seven MI companies, which are currently approved by Fannie Mae to provide charter-compliant coverage for loans that we acquire. In addition to the terms of the pool policy structure, we stipulated that MI companies participating in these transactions would need to meet certain counterparty requirements, including a minimum level of statutory capital relative to their outstanding risk in force. Six of the MI companies provided insurance bids in response to our request. Only three of those MI companies would have met the transaction counterparty requirements without needing to raise additional capital.

We chose to commit the transaction to NMI for several reasons. NMI had the materially lowest pricing of all six bidding MI companies, agreed to cover all loans in the targeted pool, met our counterparty capital requirements, and agreed to the terms of the new pool policy form that we requested, including coverage certainty provisions that provide for rescission relief.

One key observation was that although this coverage structure could be repeated in the future, the mortgage insurance industry is currently capital constrained. Pricing might need to rise considerably in connection with possible future transactions, unless the MI industry is able to raise new capital.

In conclusion, I appreciate this opportunity to present testimony before the Committee and look forward to answering any questions you may have.

PREPARED STATEMENT OF TED DURANT

VICE PRESIDENT OF ANALYTIC SERVICES, MORTGAGE GUARANTY INSURANCE CORPORATION

DECEMBER 10, 2013

MGIC History

Originally formed in 1957 by Milwaukee real estate attorney Max Karl, MGIC was established to provide an innovative, affordable alternative for families wanting to buy a home with less than a 20-percent downpayment. In 1965 MGIC became the Nation's first publicly traded mortgage insurer. Throughout its history MGIC has been at the center of what has evolved into today's highly efficient secondary market. In addition to providing mortgage insurance, MGIC created the Nation's first private secondary market facility that brought buyers and sellers together, was the first to insure mortgage backed pass-through securities, and was the first to form a conventional mortgage securities conduit. In 1971, MGIC created the first modern bond insurance company. With a focus on sustainable home ownership, MGIC has grown to provide a critical component of our country's residential mortgage finance system, protecting mortgage lenders and investors from credit losses.

The Roles of Mortgage Insurance and Bond Insurance in a New Housing Finance System

We believe that, having survived the recent housing finance crisis and saved taxpayers from \$40 billion of additional losses, the private mortgage insurance model has proven its value and should be a fundamental component of a new housing finance system. The definition of an Eligible Mortgage in S.1217 recognizes the benefits of loan-level credit enhancement by requiring minimum coverage levels for low downpayment loans. However, mortgage insurers can provide an important additional role with the provision of pool-level mortgage insurance.

The role of bond insurer is different but is also an important component of the new housing finance system. Bond insurance was adapted for use in mortgage-backed securities (MBS) from the municipal bond market. Importantly, bond insurers do not, like the GSEs, purchase and aggregate loans for securitization. The role of the bond insurer is to guarantee timely payment of principal and interest to the bondholders in the event of failure of the issuer. In order to provide this guaranty, bond insurers require that the risk of the issuer failing be remote. Bond guarantors generally paid insufficient attention to loan-level credit enhancement on the MBS they guaranteed leading up to the housing crisis. Consequently, most of them failed. Nevertheless, the role of guaranteeing timely payment of principal and interest is an important one and, with the first-loss risk sufficiently transferred to other entities, the bond guarantor model can work.

The new housing finance system envisioned in S.1217 can be improved by:

1. Clarifying the distinction between mortgage insurance and bond insurance, allowing for both loan-level and pool-level mortgage insurance, and limiting bond insurance to its traditional role of guaranteeing timely payment of principal and interest to bondholders in the event of failure of the issuer, relying on other, first-loss credit enhancement to ensure that the bond guarantor is in a remote risk position.
2. Recognizing the loss absorbing resources of mortgage insurers in the calculation of private capital at risk in front of the FMIC.
3. Establishing a preference for entities over securities as a means of ensuring a stable supply of capital through the cycle, and relying more on existing regulators of those entities as a means of clarifying the role of FMIC and avoiding a single point of regulatory failure.
4. Clarifying the point of attachment of the Government guaranty, and taking into consideration the application of the guaranty to all forms of credit enhancement.
5. Broadening the bill to include comprehensive housing finance reform that establishes consistent, uniform rules that apply regardless of the source of funding for the loans.

Would the Bond Guarantor Business Be Attractive?

With those recommended improvements in place, we expect that there will be interest from investors, including companies who write mortgage insurance, to capitalize bond guarantors. However, we expect that the insurance would be provided by separately capitalized and regulated companies who might be jointly owned within a holding company structure. In serving very different purposes, mortgage insur-

ance and bond insurance should be viewed as complementary, not competing forms of mortgage credit risk enhancement. Nevertheless, they should be managed, capitalized, and regulated separately.

The GSEs combined mortgage insurance, bond insurance, mortgage aggregation, and securitization into two excessively powerful entities. As a consequence they were both our largest beneficiaries and our largest competitors. We would be hesitant about competing against entities that are renamed GSEs, who are chartered to provide a combination of mortgage insurance and bond insurance. With years of data and experience as de facto regulators of the MI companies, and currently being in the process of determining new eligibility requirements for MI companies, rehabilitated GSEs set up to be mortgage insurers would have an insurmountable advantage over existing or other new mortgage insurers. Setting up the former GSEs as bond insurers would likely limit investor appetite for creating competition in that business. A healthy housing finance system that minimizes cost to the consumers will require many bond guarantors and many mortgage insurers.

Attachment of the Government Guaranty

S.1217 creates two different ways in which the FMIC guaranty could be triggered. In the case of structured finance, such as a senior/subordinate structure, the guaranty would be triggered by the failure of any individual security reaching the subordination level of losses. In the case of a bond guarantor, the guaranty would be triggered by failure of the entity.

Individual securities will be backed by a limited number of loans, possibly all from the same lender and concentrated geographically. They will certainly be originated within a narrow window of time. Thus, individual securities will have a great deal of variation in their performance, and their likelihood of reaching the 10-percent level will be much greater than a collection of those securities. Using a vintage-level loss trigger eliminates some of the potential lender and geographic risk, but still has a higher likelihood of reaching the trigger level than a collection of securities issued over many years. As the point of attachment gets farther away from individual securities, the attachment level needed to provide the same level of protection to taxpayers decreases.

In general, the higher the attachment level, the greater the amount of private capital that will be required and, consequently, the higher the fees will need to be to provide the private sector guaranty. This, of course, translates directly to higher costs to the borrower. However, our appetite for participation as mortgage insurers or bond guarantors depends not so much on the level of attachment as it does the equality of the attachment level and capital requirements among all competing forms of mortgage finance. A requirement for a 10-percent subordination level for individual securities and a 10-percent capital level for bond guarantors would make the bond guaranty business uncompetitive until the next housing crisis, when investors in subordinate tranches will again abandon the market.

Regulation of Bond Guarantors and Mortgage Insurers

Bond guarantors and mortgage insurers, being engaged in insurance activities, are regulated by the States. Regulation of bond insurers or mortgage insurers by FMIC raises significant State–Federal questions, adds further complexity to the management of FMIC, and concentrates oversight in a single point of failure.

We believe there are strong arguments in favor of maintaining the existing system of State regulation and Federal oversight. Aside from the political challenges of changing the State–Federal landscape with respect to insurance, there are good reasons to separate the responsibilities of regulation and prudential oversight from the responsibilities of counterparty risk management. In the housing finance system envisioned by S.1217, the bond guarantors would hold the counterparty risk of the mortgage insurers, and FMIC would hold the counterparty risk of the bond guarantors. Thus, FMIC is the ultimate counterparty for both bond guarantors and mortgage insurers. As such, it makes sense for FMIC to be responsible for issuing eligibility requirements and monitoring compliance. Giving them full authority for approval and prudential regulation, however, concentrates too much responsibility in one entity that may have conflicting priorities. The recent financial crisis demonstrated the importance of having multiple points of oversight of mortgage insurers, with the majority of companies surviving and continuing to fully pay valid claims.

Considerations for Choosing Risk Transfer Tools

Higher Risk Loans Require Loan-Level Guarantees

A fundamental principle in selecting a form of risk transfer is that, the higher the level of the risk of the loans, the closer the risk transfer should be to the loan

level. Any loan with a significant level of risk of loss should require loan-level credit enhancement placed at origination by an entity that is involved in the underwriting, origination, and servicing of the loan.

Safe loans, to borrowers with substantial downpayments and income, steady jobs, and strong credit histories, do not require much individual attention. There is very little credit risk to transfer and the entities that acquire the risk can safely do so after the origination of those loans. This lower risk segment of lending is where pool MI and bond insurance are appropriate. This is also the segment in which Fannie Mae and Freddie Mac have undertaken their recent credit risk transfer transactions.

However, as the level of risk increases, it becomes progressively more important to pay attention to the quality of underwriting and verification of the offsetting factors that will help a borrower overcome weak points in their qualifications. Entities that take the credit risk on these loans must participate in and make their credit decisions during the underwriting and origination process. This is a distinguishing feature of loan-level private MI and an important source of protection for the U.S. taxpayer. The use of subordinated tranches and security-level guarantees for the securitization of subprime mortgages, for example, produced disastrous results. The guarantors and the investors in the bonds were too isolated from the underwriting and origination of the loans to understand and manage the true risk they presented. Loan-level mortgage insurance has been proven to reduce the default risk on high LTV loans, demonstrating its effectiveness and justifying its longstanding inclusion in bank capital requirements, GSE charter requirements, QRM statutory language, and the S.1217 definition of Eligible Mortgage.

Differentiation Must Be Maintained Between Mortgage Insurance and Bond Insurance

Bond insurance and mortgage insurance serve two different purposes. Mortgage insurance covers losses to the lender in the event a borrower defaults. Bond insurance covers timely payment of principal and interest to bond investors in the event an issuer defaults. The guaranty of timely principal and interest requires substantial, immediate liquidity in the event of an issuer default, so bond insurers rely on other forms of credit enhancement to ensure that the likelihood of a claim is remote. Mortgage insurance, on the other hand, involves frequent claims at the loan level, but the time between borrower default and the resolution of the claim is substantial (usually well over a year), so liquidity is not as important as overall capital. Those are different business models that require separately capitalized entities for proper risk management.

Importantly, bond insurers should be kept in a remote risk position through a combination of loan attributes and additional credit enhancement. As long as that is the case, bond insurance and mortgage insurance should be thought of as complementary, not competing, forms of credit enhancement.

Entity-Based Enhancement Is More Stable Than Security-Based Enhancement

Another fundamental goal of housing finance reform should be to ensure the proper supply of capital for mortgages through the economic cycle. People like to refer to two states of the world—"Normal" and "Stress" (See, for example, the presentation by James Stock to the Urban Institute 11/13/13, available at <http://www.urban.org/UploadedPDF/412947-Cyclical-Stabilization-and-the-Structure-of-Mortgage-Finance.pdf>). From the perspective of a mortgage insurance company, the period 2003–2007 is not normal, and we should not be trying to get ourselves back to that state. If there is going to be Government intervention in mortgage markets, the purpose must be both to ensure sufficient liquidity in a stress and to prevent excessive liquidity in "normal" times. This is only feasible if mortgage credit risk is managed by entities that dedicate their capital, both human and financial, to being in business through the cycle. The illusion of a "best execution" cost advantage of structured transactions is, in reality, the mechanism that creates the boom-bust cycle, providing too much credit in a boom, and no credit in a bust. Entities in the business of creating structured transactions are motivated to make the next deal, creating a very short-term focus on transaction volume. Insurers, in contrast, are motivated to build and maintain a book of insurance in force that is sized to the amount of capital they have available. This capital level does not change quickly, creating a significantly more stable level of funding capacity through the cycle.

Capital Requirements Must Relate Consistently to Risk Absorbed

While it is important for there to be a number of tools available for mortgage credit risk transfer, it is also important for regulators to ensure that capital treatment across the tools is consistent with the risks they bear and the benefits they bring. It is a deceptively simple matter to calculate the amount of "private sector

capital” in a senior/subordinate securitization structure. The level of subordination marks a clear dividing point, and the subordinated bonds represent true cash available to absorb losses at the initiation of the transaction. In practice, the level of subordination can be highly affected by prepayments. Complicated interest maintenance mechanisms have to be in place to ensure the sufficiency of the subordination level as the security is paid down. Shifting prepaid principal can significantly alter the prepayment characteristics and, consequently, the valuation of the senior bonds.

The equivalent protection offered by insurers is best measured as loss absorbing capacity, which includes capital, reserves, and premium. Capital and reserves are readily converted to an equivalent of cash. While the forecast of premium is subject to some uncertainty, in practice the forces that cause increased losses also generally cause increased premium (also known as guarantee fees) through longer loan lives. Projection of premiums and, thus, the calculation of how much loss absorbing capacity is provided by an insurer should be the kind of task easily performed by a competent regulator.

In addition to correctly calculating the capital requirements for each form of risk transfer, it is vitally important that all of the loss absorbing capacity be included in the calculation of private capital at risk in front of the taxpayers. As written, S.1217 does not appear to allow for credit for mortgage insurance, for example, to be included in the calculation of whether there is 10-percent capital. The result will be a significant understatement of the private capital at risk. This will increase borrowing costs and create the disincentive for use of anything other than minimal levels of MI, regardless of the actual economics and amount of risk transferred.

Incentives and Moral Hazard

The phrase “skin in the game” is overused, but it describes an important aspect of designing a sound housing finance systems. All the participants must have some incentive to properly manage risk. Insurers employ a variety of tools to manage the risk of moral hazard, in which insurance beneficiaries have the incentive to behave in such a way as to increase the risk to the insurer. Deductibles and coinsurance are two commonly used tools. In mortgage insurance, limited depth of coverage on primary loan-level insurance provides servicers with the incentive to take proper care of delinquent borrowers and minimize the loss severity on defaulting loans. Risk transfer tools should always be designed to ensure that the potential for moral hazard is explicitly managed. Retention of some amount of risk is frequently and appropriately used to accomplish that.

Accounting True Sale and Consolidation

Discussion of risk retention in mortgage securitization must also include consideration of the accounting issues of true sale and consolidation. One of the primary values of securitization is to create a source of funding that allows the lender to remove the loans from their balance sheet. This occurs when the securitization transaction is considered to be a true sale of the loans to the securitization entity. Accounting rules, specifically FAS 166 and 167, describe the circumstances under which a true sale of the loans has occurred, and whether the loans must be consolidated back to the lender's balance sheet even if it is considered a true sale. While moral hazard considerations make it desirable for lenders to retain risk, true sale and consolidation issues could cause those risk retention features to make the mechanism unusable. Critical factors for ensuring the securitization successfully transfers the risk include control of the underwriting criteria, control of the servicing, beneficial interest in the securities, and exposure to risk. In Ginnie Mae securitization, the control of underwriting and servicing criteria by the insurers (FHA, VA, RHS) and the position of the Government as the ultimate bearer of risk make the Federal Government the consolidating entity, despite the fact that the lenders, as Ginnie Mae issuer/servicers, retain a portion of the risk. In GSE securitization, there is no question that a lender selling a loan to the GSE constitutes a true sale and there is no consolidation risk back to the lender. However, as private entities, the GSEs should have to consolidate all the loans underlying their guaranteed bonds back to their balance sheets. Under S.1217, it is not yet clear whether the system envisioned would result in the Government being the consolidating entity, or whether private entities would have to consolidate. The resolution of that question will have a significant impact on the feasibility of the system.

Background: The Fundamentals of Mortgage Risk

Mortgage loans are secured lending, meaning that the borrower has pledged her ownership of her house as collateral in case she is unable (or unwilling) to repay the loan. The risk to the lender, then, is determined by both the likelihood of the borrower failing to make her payments and, should that happen, the risk that the value of the property will not be sufficient to pay off the remaining debt. The likeli-

hood of the borrower failing to pay off the loan is referred to as default incidence by insurers and probability of default (PD) by bankers. The amount that the lender loses, which is the difference between the remaining debt and the value of the property, is referred to as loss severity by insurers and loss given default (LGD) by bankers.

Default incidence is driven by borrower circumstances, including the amount of equity the borrower has in the property. When the borrower purchases the home, the amount of equity is the downpayment. Over time, the property may gain or lose value, the borrower may pay down the loan, or refinance for a greater amount (cash out), or take out a second mortgage. All of those events change the borrower's equity in the home. If a borrower takes out additional financing and the home loses value, the borrower may find himself in a position of negative equity, also referred to as being underwater. A borrower with negative equity, who might otherwise be able to afford to make his mortgage payments, might choose to stop making those payments, in what is called a strategic default. Under normal market conditions, most borrowers default because of adverse changes in their personal circumstances, such as job loss, death or disablement, or divorce.

Loss severity is driven by the amount that can be recovered by selling the property, relative to the outstanding debt. In addition, expenses associated with foreclosure, including legal fees, accrued interest, and real estate maintenance and sale expenses, increase loss severity. The longer it takes to complete the process, the greater the loss severity. This results both from the increased expenses and interest, and the deterioration of the property as homes in foreclosure are typically not maintained properly.

Loss mitigation is the reduction of loss severity through a variety of actions by the loan servicer to, first, keep the borrower in the home and, second, minimize the amount of time it takes to resolve the default. Keeping the borrower in the home often results in an improved outcome for the lender. Techniques for doing this include forbearance, in which some amount of the debt is delayed in repayment, and modification, in which the term of the loan may be extended, the interest rate reduced, or some portion of the debt forgiven. Another loss mitigation approach is a short sale, in which the borrower and lender agree to sell the property for a loss, and the lender then either forgives the remaining debt or the borrower may agree to pay off some portion of the remaining debt as an unsecured loan.

Fraud and misrepresentation are an additional risk in mortgage lending that became more widely recognized in the recent financial crisis. They are more accurately described as operational risk, not credit risk, but they have a significant impact on credit risk. Mortgage lenders, investors, and insurers all rely on representations and warranties (reps and warrants) from other entities as to the truth of the information on a mortgage application. Borrowers make representations to lenders. Lenders make reps and warrants to investors and insurers. Misrepresentation of facts, either unintentionally or fraudulently, may significantly alter the credit risk of a mortgage loan. For example, if a borrower makes \$40,000 per year and the application shows \$480,000 per year, the borrower will have a substantially greater likelihood of default than what would be expected from the application. Note that this mistake could have occurred because (a) the borrower lied, (b) the lender changed the information without the borrower's knowledge, or (c) an annual income amount was accidentally treated as monthly and multiplied by 12.

The consequences of fraud and misrepresentation have been widespread, particularly in loans originated from 2005–2008. Mortgage insurers that found material fraud and intentional misrepresentation have rescinded coverage, meaning they canceled the coverage and returned all premiums paid, refusing to pay insurance claims on those loans. Mortgage investors like Freddie Mac and Fannie Mae have required lenders to repurchase billions of dollars of loans. Financial guarantors, having paid significant claim losses on guaranteed pools, have sued and obtained billions of dollars in recoveries from issuers. FHA has recovered billions of dollars from their lenders through indemnification requests and through Government fraud suits involving treble damages.

First-Loss Exposure and the Credit Risk Stack

First-loss exposure is a significant concept in secured lending. Most defaults involve a recovery of some amount from sale of the property or continued payment of the modified loan by the borrower. Someone in a first-loss position takes losses regardless of how much is recovered, assuming the recovery is not sufficient to pay off the whole loan. For example, if a loan has a balance of \$100,000, and the lender recovers \$70,000 from the sale of the home, the loss is \$30,000. If the lender has mortgage insurance that covers the first 25 percent of losses, the insurer pays the

first 25 percent x \$100,000 = \$25,000, leaving the lender with the remaining \$5,000 of loss. The remaining loss is referred to as residual risk after the first-loss position.

Importantly, the first dollar of loss is more at risk than the next dollar. This follows from the uncertainty of how much will be recovered from the sale of the property, and the fact that each additional dollar of recovery is less likely. Put another way, the first dollar of loss will almost certainly be lost in a default, but the last dollar will almost certainly be recovered.

This concept illustrates why downpayment is such an important consideration in mortgage lending. The borrower's downpayment represents the true first-loss position in the transaction. Losses to the lender (and any insurers) only come after the borrower's equity is used up. Greater borrower equity directly lowers the expected severity in the event of default. And, as discussed earlier, greater borrower equity, all else equal, lowers the likelihood of default, as well.

The credit stack is often used to illustrate the exposure to loss, as shown in Figure 1. The various entities exposed to risk are shown in a vertical stack, with the first-loss position at the bottom, and more remote positions toward the top. If the borrower has equity, they may be shown at the bottom. In this example, the borrower makes a 10-percent downpayment, the mortgage insurer covers 25 percent of the loan amount, and the investor (Freddie or Fannie) has the residual risk. The amount covered by the mortgage insurer is referred to as the depth of coverage. The farther you get from the bottom of the stack, the more remote is your risk.

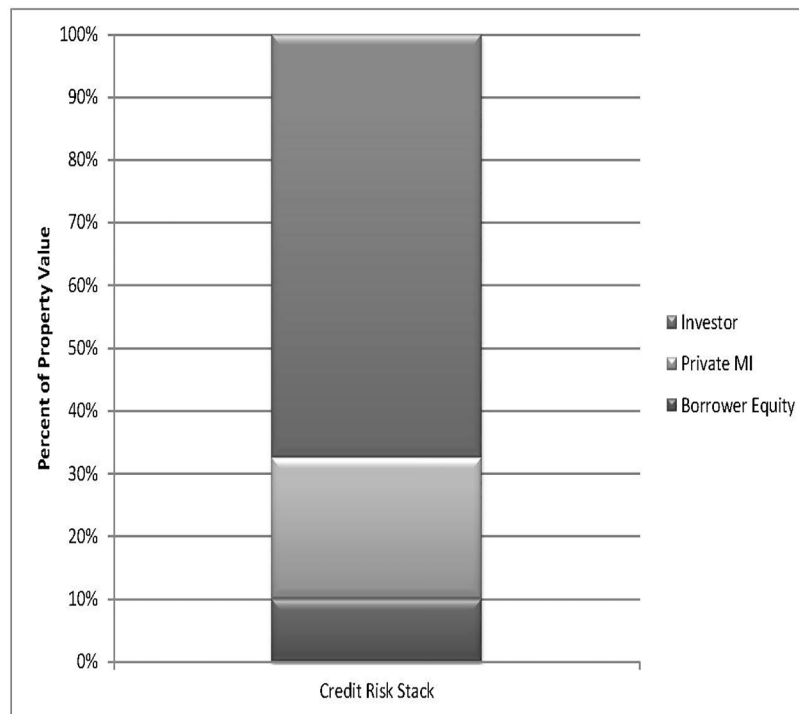


FIGURE 1

Structured securitization involves a similar concept, but it operates on a pool of loans, rather than an individual loan. In a senior-subordinate securitization, the monthly loan payments flow through a waterfall, in which the senior bondholders are paid first and the subordinate bondholders receive any remaining payments. In this case, the subordinated holders bear 100 percent of the severity of each loss, up to the point at which they have lost their remaining principal. At that point, the senior bondholders begin bearing 100 percent of the severity of each loss. Figure 2 shows a securitization credit stack, which typically does not include the borrower

equity. In the example, there is a 10-percent subordination level, in which two subordinate bonds equal 10 percent of the total debt and senior bonds equal 90 percent of the total debt. Just as in the case of the individual loan, the higher you go in the stack, the more remote the likelihood of a loss.

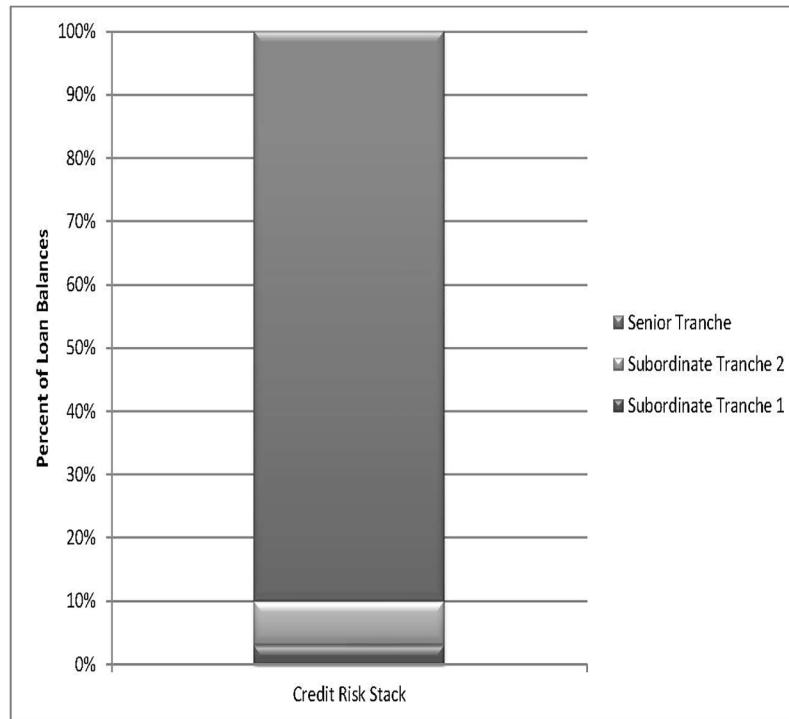


FIGURE 2

Forms of Mortgage Credit Risk Transfer

Mortgage credit risk transfer is typically done in two ways, through entities and through structured transactions. These two are not mutually exclusive, and in private securitization often both have been used. Entity-based forms of risk transfer include mortgage insurance, financial guaranty (bond insurance), and reinsurance. Structured transactions include surplus notes, senior/subordinated (tranche) securitization, and synthetic derivatives.

Entity-Based Forms of Credit Risk Transfer

Mortgage Insurance can be provided by Government insurers (FHA, VA, RHS, PIH, Housing Finance Agencies) and by private mortgage insurers. Mortgage insurance typically covers individual loans, though it may also be used on pools of loans. Mortgage insurance is almost always in a first-loss position or is used in combination with other mortgage insurance that is in a first-loss position. Mortgage insurers control their risk on loan-level insurance through limited depth of coverage, which limits the severity risk but not the incidence risk. In other words, the depth of coverage limits the losses on any individual loan, but does not limit the number of loans on which losses may be paid. Losses paid on one loan do not reduce the insurer's obligation to cover the remaining loans. Pool insurance typically reverses that, covering 100 percent of the losses on each loan, but limiting the total losses and, therefore, the total incidence. Once the coverage limit has been reached, remaining loans are uncovered.

Standard private insurance coverage depth today is 30 percent for loans with a 5-percent downpayment, 25 percent for loans with 10 percent, and 12 percent for loans with 15 percent. FHA insurance covers 100 percent of the losses, although

their interest reimbursement typically does not cover all of the accrued interest advanced by the servicer. VA insurance generally covers 25 percent. RHS insurance generally covers 90 percent.

Mortgage insurance generally requires that the servicer acquire title to the property through foreclosure or complete a short sale in order to file a claim. The insurer then adjusts the claim to ensure the expenses are appropriate and the loss is calculated properly. The insurer also may investigate the loan documents for evidence of fraud or misrepresentation. After the insurer has made any required adjustments and assuming they do not find fraud or misrepresentation, they pay the servicer.

Financial Guaranty (Bond Insurance) can be provided by Government entities (Ginnie Mae, for example) or private financial guaranty firms. Private bond insurers, like mortgage insurers, are regulated by State insurance departments. Bond insurance is distinguished from mortgage insurance in that: it always operates at the pool level, never at the loan level; it is always placed in conjunction with a securitization transaction; it generally operates at a zero expected loss level, i.e., a remote level in which some other form of risk transfer is in the first-loss position; and it covers the risk of default by the issuer of the mortgage-backed security, not by the individual borrowers. Because of that last factor, bond insurers begin making payments to bondholders immediately on default of the issuer. If the bond insurer later finds material fraud and misrepresentation, they must sue the issuer to recover those losses. Bond insurance generally does not have any limit on losses. This combination of features makes it very important that bond insurers place their guarantees on pools of loans that are very safe or sufficiently credit enhanced to make the bond insurer's risk very remote.

Reinsurance can be provided by Government entities (e.g., TRIA for terrorism risk, FCIC for crop insurance) or by private insurers. In the private sector, there are global firms that specialize in providing reinsurance across a variety of sectors and risks. They seek to diversify across uncorrelated risks, so that their likelihood of facing claims on multiple exposures at the same time is minimized. Like financial guarantors, reinsurers generally operate at remote layers of risk, with some other entity (typically the entity they are reinsuring) taking the first-loss position. Government reinsurance is typically used to cover true catastrophic risk such as terrorist attacks, floods, or crop failure.

Mortgage insurers and financial guarantors have similar regulatory rules that are different from other forms of insurance and from other forms of mortgage banking. The primary feature of their regulation is the capital and contingency reserve requirement. Each company must hold a minimum amount of capital, relative to the risk insured. In addition to that capital and case based reserves, which are specific reserves for delinquent loans, the company must hold a contingency reserve. The contingency reserve requirement is typically to hold 50 percent of earned premiums for a period of 10 years. Funds may only be released from the reserve in the event that losses exceed a significant level. As a result, mortgage insurers and bond insurers have a unique countercyclical capital requirement, forcing them to accumulate claims paying resources in excess of their minimum capital requirement during profitable periods, which may be drawn upon during periods of significant stress.

Claims paying resources, or loss absorbing resources for an insurer are the sum of their capital, their reserves (including the contingency reserve), and the premium they receive from coverage renewal. These resources form the "private capital at risk" when a mortgage insurer covers a loan.

Structured Forms of Risk Transfer

Surplus Notes are a type of debt used by insurance companies to transfer risk to the debt holders. They typically involve a variable rate of interest that depends on the loss performance of the insured risk. As losses to the insurer increase, the payments to the surplus note holders decrease, offsetting the losses to the insurer.

Senior/Subordinate (Tranched) Securitization, as described earlier, strips risk from the underlying loans and transfers most of that risk to the subordinate bondholders, leaving the senior bondholders in a more risk-remote position. Like pool insurance, once the subordinate layer is used up, the remaining loans are no longer protected.

Synthetic derivatives transfer risk to investors through securities whose performance depends on the performance of a reference pool of loans. They are similar to surplus notes, in that they feature debt securities that provide a variable rate of return based on the performance of the reference pool. There is not an exact correlation between actual losses and the performance of the pool, however. Recent examples of this approach, like the Freddie Mac STACR transaction, transfer losses to the investors at a fixed severity level when loans reach a specified level of delin-

quency. As a result, investors are insulated from the consequences, both positive and negative, of loss mitigation and loss severity risk.

PREPARED STATEMENT OF SANDEEP BORDIA

HEAD OF RESIDENTIAL AND COMMERCIAL CREDIT STRATEGY BARCLAY'S CAPITAL

DECEMBER 10, 2013

Good Morning, Chairman Johnson, Ranking Member Crapo, and other Members of the Committee. My name is Sandeep Bordia and I am the head of residential and commercial credit strategy at Barclays in New York. My group covers research on mortgage credit markets in the U.S. and Europe, including research on housing finance. I appreciate the opportunity to discuss the fundamentals of transferring credit risk from the U.S. taxpayer to the private markets.

In my remarks, I will start by describing the STACR and CAS credit-linked deals (Freddie Mac and Fannie Mae risk-transfer deals), including what has worked for these structures and what can be improved going forward. I will also talk about the buyer base, the market's appetite to absorb such issuance and how that would change if the attachment point of the Government guarantee is higher. Finally, I will compare and contrast the credit-linked note approach to two other proposed structures: (a) the senior-sub structure; and (b) the bond guarantor approach.

STACR/CAS Deals Overview

To begin with, let me talk briefly about the STACR/CAS deals recently sold by the GSEs. So far, three deals have been priced, two from Freddie Mac and one from Fannie Mae (for a total of \$1.8 billion in credit issuance). In each of these deals, the GSEs have retained the risk on a 0.3-percent first-loss position and sold the credit risk on the 0.3- percent to 3-percent loss piece. This means that the GSEs will absorb losses on the first 0.3 percent of notional on the underlying reference pool of loans for these transactions. Further, at the risk of oversimplifying, the buyers of the issued securities will absorb losses to the extent that they range from 0.3 percent to 3 percent of the notional. In each case, the GSEs have also retained some small amount of this 0.3-percent to 3-percent slice of risk while retaining the right to reduce their ownership to as low as 5 percent by sales in the secondary market. Appendix A shows a snapshot of the three deals. The 0.3-percent to 3-percent risk slice sold is broken into two parts, one more senior than the other to better target the risk appetites of various classes of investors. In all the three deals, the risk of losses above 3 percent is borne by the GSEs and by extension, the taxpayer.

The structures were very well received by the market with all three deals oversubscribed many times over. The buyer base was fairly broad with several dozen investors participating. Money managers dominated purchases of the more senior of the two tranches on offer. Hedge funds, money managers and REITs invested in the junior of the two tranches. Insurance company involvement was somewhat limited due to uncertainty around capital requirements on these tranches under the National Association of Insurance Commissioners (NAIC) model-based approach. Many investors were comfortable with the credit profiles and also used financial leverage to buy these bonds.

What Has Worked for the Credit-Linked Note Structures So Far?

In our past published research, we have argued that to be successful, any solution used to transfer mortgage credit risk to the private market should have certain basic features. The solution should preserve the well-functioning To-Be-Announced (TBA) market for disseminating the interest rate risk on mortgages and allow mortgage originators to hedge out their origination pipelines. The solution should also be simple (to the extent possible), use existing financial technology and be programmatic so as to attract a wide range of investors.

In our opinion, the credit-linked note structure satisfies most of these conditions. It allows the preservation of a liquid, well-functioning TBA market, is simple for market participants to understand, uses existing financial technology and is scalable into a standardized program.

What Else Needs To Happen for This Program To Be Successful?

In our view, a few more things need to happen for this program to be successful in the long run.

- One, for GSEs (or any new entity) to be able to access a well-functioning liquid credit market on a regular basis, involvement from a broad range of investors is required. Since there are fixed costs for investors to set up internal systems to analyze and track performance of these deals, broader participation requires

a programmatic approach to issuance. In other words, investors need to be confident that the deals are not one-offs and the program is here to stay. We would also caution against excessive experimentation with the structures that may create a more fragmented marketplace and reduce liquidity.

- Two, expanding the type of collateral on which the credit risk is sold is critical. The initial deals covered only the cleanest portion of GSE originations that is not fully representative of the collateral quality that GSEs or any such entity would be expected to guarantee over time.
- Three, in the long run, reducing the time between agency MBS issuance and credit-risk transfer would help. The GSEs are effectively warehousing the credit risk during that time period. As such, shortening the window would reduce potential taxpayer exposure. In addition, a shorter time window would also allow for more timely market-based feedback into guarantee fee pricing for future production. It might make sense to sell even the 0-percent to 0.3-percent first-loss tranche as the time between agency MBS issuance and credit-risk transfer shrinks.

Market Appetite To Absorb the Risk

While the initial three deals have been heavily oversubscribed, the amount of credit risk sold so far is miniscule in comparison to what the GSEs have on their guarantee books. To put numbers in perspective, a 3-percent to 4-percent loss tranche on a \$5 trillion book would translate into \$150–200 billion of credit-linked notes (compared to the \$1.8 billion that was sold this year). We believe that the market can absorb \$5 to \$10 billion next year without much disruption, and even greater numbers in 2015 and later. For the program to get to a stage where it can absorb much of the mortgage credit risk with GSEs, it would realistically take several years of continued ramp up.

One big source of potential demand would be investors in legacy nonagency MBS. There is currently about \$850 billion (face value) outstanding in the nonagency market. This is paying down at the rate of \$60 to \$70 billion annually. Given strong mortgage credit expertise among many of these investors, some of the paydowns they are receiving would likely be reinvested in these securities. We could also see additional interest from money managers and REIT-like entities.

What Is the Right Attachment Point for the Government Entity To Absorb Losses?

Among other things, the attachment point for the Government entity to absorb losses is a function of the policy goal and also the collateral quality on which the credit risk is being sold. The attachment point would be higher if the policy goal is to prevent taxpayer losses even in extreme draconian scenarios. A 3-percent attachment point might be reasonable for pools where the market expects very low losses but would not be enough where base expectations are close to or even higher than 3 percent. Generally speaking, a worse quality pool of underlying mortgages would require a higher attachment point and/or higher risk premiums for the credit-risk-transfer securities.

For example, consider loans originated in Q3 2012, with an average loan-to-value of below 80 percent. Since then, home prices have risen another 10 percent to 15 percent around the country. As such, the current loan-to-value ratio makes these mortgages even safer and a 3-percent attachment point might be reasonable. In contrast, a 3-percent attachment point on newer production with greater LTVs and no accumulated home price appreciation might not be enough. This is especially so because we learnt through the crisis that in a bad economic environment, poor credit quality loans have losses that are several multiples of the losses of good quality loans.

How Do We Think About the 10-Percent Tranche Proposed by S.1217?

As I mentioned earlier, a constant attachment point for all kinds of collateral might not be reasonable, in our view. In a scenario where we look at a 10-percent first-loss piece, the first thing to consider is whether all of this would even be considered as a first-loss piece by the market. So, while a 10-percent slice of a \$5 trillion market would equal \$500 billion in mezzanine/subordinate bonds, not all of it may be considered as deep credit investments and some may even receive high investment-grade credit ratings. In other words, while more credit-linked securities would need to be sold in the market, this should mean that the buyer base could be expanded from what we have seen on the STACR/CAS deals to include more risk-averse money managers and insurance companies.

One number to consider is that, even at its peak, the total amount of subordinate and mezzanine bonds outstanding in the nonagency market in 2005–2007 was slightly below \$400 billion. So, while it is certainly possible for the private market

to absorb \$500 billion in supply, it is by no means a done deal and would take a relatively long time to achieve.

Other Approaches to Credit Risk Transfer

There are two other approaches that are being considered for transferring credit risk from a Government-supported entity. The first is to use a securitization style vehicle in the form of a senior-sub structure. The second is to use well-capitalized bond guarantors to cover losses.

Senior-Sub Structure Less Preferable

As we have recommended in the past, we prefer credit-linked notes to senior-sub structure as they allow us to preserve the well functioning TBA market as is. A senior-sub structure could also increase the warehousing costs for originators if they were forced to hold both the interest rate and credit risk until they accumulated enough loans to issue a senior-sub deal. This could be particularly problematic for smaller originators who may have to accumulate loans for months before they could do a reasonably sized deal. In theory, it would be possible to create a new TBA-like market just for the seniors but it might orphan the existing TBA market, would likely be a difficult transition and may have lower liquidity than the current set-up.

Bond Guarantors as Providers of First Loss

Alternatives to selling credit risk in transactions like STACR/CAS include using bond guarantors as providers of first loss. On the positive side, this exit solution will likely provide more stable funding for mortgage credit than securitization options (credit-linked and senior-sub structures). The securitization option is likely to be more procyclical, especially because of the availability of leverage to investors in buying those securities. However, the bond-guarantor structure also has two major drawbacks compared to the STACR/CAS structures, in our view.

- First, this form of insurance may result in some counterparty credit risk. The STACR/CAS deals provide the GSEs with cash equal to the face value of the first-loss piece sold. This cash can be set aside to provide the GSEs with an actual cash capital cushion in case losses exceed the threshold that the GSEs have chosen. In the insurance/bond guarantee transaction, the insurer does not have to pay this cash up front but only if losses exceed a certain level. While S.1217 requires bond guarantors to hold capital equal to at least 10 percent of the guaranteed balance, this only works as a safeguard if the bond guarantors' only business is to provide insurance on these MBS. If the guarantor is involved in other lines of business, unless the capital is held in a separate account for the benefit of the enterprises or their successor, the taxpayer still takes on some counterparty credit risk to the guarantor. For example, if in certain extreme situations, the losses on the guarantors' other lines of business exceed the capital set aside for those business lines, there is some risk that the insurers have to pay out using the capital otherwise required to be held to cover mortgage losses. This could potentially lead to a situation where some part of the 10 percent is not covered and the taxpayer is exposed to the risk. Stronger oversight and regulations separating the capital held for guaranteeing MBS could potentially mitigate this risk, but would not eliminate it completely.
- Second, the bond guarantee structures would not be as transparent in pricing as the STACR/CAS deals since there would be no secondary market to provide liquidity/pricing information on an ongoing basis. The secondary market would provide more immediate feedback to guarantee fee pricing than an insurance/bond guarantee transaction could. A fully functional secondary market in these credit tranches also provides useful information that could allow a fully private market to price credit risk in a more transparent manner and could help in fostering a fully private market.

Conclusion

Overall, while we favor the credit-linked structure, given the size of credit risk transfer required over the long run, it might be preferable to have multiple exit options including through bond guarantors. While I believe that there are various paths to achieve the goal of transferring credit risk to the private market, I would caution policy makers to closely watch the pace of any such transition. The availability of mortgage credit remains extremely important to the housing market and the economy as a whole and any sudden shocks to the system that reduce this availability could have far-reaching consequences.

Chairman Johnson, Ranking Member Crapo, and other Members of the Committee, I thank you for your time and attention and the opportunity to testify before the Committee.

Appendix A – Details of STACR/CAS Deals

Deal	Month Issued	Reference Collateral Balance	Collateral vintage	Bond	Rating	Attach ment	Detach ment	Tranche Sold	Tranche size	% Retained
STACR 2013-DN1	Jul-13	\$22.6bn	Q3 2012	M1	-	1.65%	3%	\$250mn	\$305mn	18%
				M2	-	0.3%	1.65%	\$250mn	\$305mn	18%
				B	-	0%	0.3%	-	\$68mn	100%
CAS 2013-C01	Oct-13	\$26.8bn	Q3 2012	M1	BBB- Fitch	1.65%	3%	\$338mn	\$361mn	6.6%
				M2	-	0.3%	1.65%	\$338mn	\$361mn	6.6%
				B	-	0%	0.3%	-	\$80mn	100%
STACR 2013-DN2	Nov-13	\$35.3bn	Q1 2013	M1	Baa1 Moody's / BBB- Fitch	1.95%	3%	\$245mn	\$371mn	34%
				M2	-	0.3%	1.95%	\$385mn	\$583mn	34%
				B	-	0%	0.3%	-	\$106mn	100%

Note: Attachment point shows the minimum level of losses required before the tranche takes any principal writedowns/losses. Detachment point signifies the approximate level of losses at which the tranche is completely written down. Source: Barclays Research

PREPARED STATEMENT OF WANDA DELEO

DEPUTY DIRECTOR, DIVISION OF CONSERVATORSHIP, FEDERAL HOUSING FINANCE AGENCY

DECEMBER 10, 2013

Chairman Johnson, Ranking Member Crapo, and Members of the Committee, my name is Wanda DeLeo and I am the Deputy Director of the Office of Strategic Initiatives at the Federal Housing Finance Agency (FHFA). Thank you for the opportunity to appear before you today to discuss the credit risk transfer activities we have asked Fannie Mae and Freddie Mac, or the Enterprises as I will refer to them, to participate in, particularly securities market sales of credit-linked debt instruments. I'd like to start by recognizing the important work this Committee has undertaken to redesign the Nation's housing finance structure, including specifically the current work of the Chairman and Ranking Member, the efforts of Senators Corker and Warner, and those of their cosponsors, as well. We remain eager to help in any way we can.

More than 5 years into conservatorship, the Enterprises continue to provide funding for roughly two-thirds of all new mortgages. Combined with direct Government guarantees through FHA and VA, this amounts to roughly 90 percent of new loans being supported by the Federal Government. Enterprise losses since the financial crisis in 2008 required the Treasury to inject \$187.5 billion of capital into those companies. While the new loans they insure or guarantee are of much higher quality than those that led to most of the losses, it is prudent to seek alternative funding mechanisms that place less potential burden on taxpayers. Our credit risk transfer program is designed to do exactly that.

Improved housing market conditions, coupled with policy changes and strong efforts of staff of both Enterprises to address still serious deficiencies in their business operations, have enabled a welcome return to profitability. But that should not blind us to the very real costs associated with the Enterprises' failures. The dividends they have paid to the Treasury reflect not a return of capital, but payment for the extraordinary risk the Government was forced to take in view of the potential at the time for economic disaster. The current earnings are only possible because of the Treasury investment; no one even today would be purchasing Enterprise debt in the absence of it.

It is in keeping with FHFA's responsibilities as conservator to minimize taxpayer risks while helping to ensure the secondary mortgage market continues to serve its functions. At the same time, we are seeking to develop standards, norms, experience, and private investment capacities that can continue into the future of a new secondary market structure. Credit risk transfers can help us simultaneously in all three of our broad conservatorship goals: build, contract, and maintain. Accordingly, we have set a target for each of the Enterprises to conduct multiple types of risk sharing transactions involving single family mortgages with a total of at least \$30 billion of unpaid principal balances in 2013. We specified that the transactions be economically sensible, operationally well-controlled, transparent to the marketplace,

and involve a meaningful transference of risk. Further, we informed the Enterprises that our evaluation for assessing their performance on FHFA's conservatorship scorecard objectives will also consider the utility of the transactions to furthering the long-term strategic goal of risk transfer. We will make final judgments later this year, but clearly the transactions completed this year have accomplished a great deal.

The Enterprises have initially focused on two broad categories of credit risk sharing transactions. One transaction category is prefunded capital markets transactions, which include Freddie Mac's Structured Agency Credit Risk securities (STACRs) and Fannie Mae's Connecticut Avenue Securities (C-deals). In these transactions, investors buy debt securities that offer relatively higher returns if the credit performance of loans in a reference pool is good, but may lose principal when credit performance deteriorates. There is no counterparty risk for the Enterprises because when investors buy the securities, they are putting up cash that covers their maximum losses. This approach offers efficient, competitive, market pricing of risk. It also spreads risk across many investors with varying degrees of leverage, and with varying degrees of risk concentration in mortgages. Less risk concentration and less leverage has the potential to reduce systemic risk relative to past and current practices that channel the bulk of the risk into a very small number of highly leveraged institutions, such as the Enterprises. A possible downside is that overreliance on this approach may leave the market for risk more prone to price change in response to changing market conditions.

The other transaction category for this year's Enterprise transactions is insurance or guarantee agreements. In these, a mortgage insurer, reinsurer, or other guarantor pays claims in the event of loss. These deals can take advantage of such firms' mortgage expertise and dedicated capital, and they may be less quick to leave the market during a temporary market disturbance, especially one not directly related to housing markets. However, this approach involves more counterparty risk, more vulnerability to housing market weakness when the counterparties are not diversified, and a more limited set of bidders for the risk.

In both types of transactions, the Enterprises essentially use a portion of their guarantee fee income from the reference pool to purchase credit protection, either through higher interest rates paid on the capital market transactions, or through premiums paid to insurance companies. FHFA worked closely with the Enterprises on each of this year's transactions, and in each case was confident that conservatorship goals would be served. Reaching this point required strong efforts by many over an extended period of time, and I want to recognize the excellent work of the staffs of Fannie Mae and Freddie Mac, including those sitting beside me today.

2013 Securities Transactions

This year, each Enterprise has sold debt securities that transfer to private investors a portion of the credit risk of a large reference pool of single-family mortgages that the Enterprise had previously securitized. Freddie Mac has completed two STACR transactions to date, and Fannie Mae has completed one C-deal. Each transaction provides credit protection to the issuing Enterprise by reducing the principal on the debt securities as credit performance of the reference pool deteriorates.

Freddie Mac's transactions occurred in July and earlier this month. In the July offering, the Enterprise sold \$500 million in STACR notes, resulting in credit protection on \$18.5 billion of collateral consisting of mortgages funded in the third quarter of 2012. In the November offering, Freddie Mac sold an additional \$630 million in STACR notes, resulting in credit protection on \$23.3 billion of collateral that the Enterprise had funded in the first quarter of 2013. The STACR notes are unsecured general obligations of Freddie Mac.

The credit event that results in losses on the STACR notes is determined to occur if a loan becomes 180-days delinquent or there is a third-party sale, a short sale, a deed-in-lieu at foreclosure, or a sale of real-estate owned (REO) before 180-days delinquency. When such a credit event occurs, a credit is calculated based on a tiered loss severity schedule, where the severity increases with the cumulative unpaid principal balance (UPB) of the underlying loans that experience credit events. If calculated credit losses exceed 0.3 percent of the UPB of the reference collateral pool, the principal of the STACR notes is written down by the amount of the excess, until the calculated losses exceed 3 percent and the remaining value of the STACR notes is eliminated. In these initial transactions, Freddie Mac retained the risk for the first 0.3 percent of UPB and any losses beyond 3 percent in large part because of cost effectiveness considerations. Covering a wider range of losses may be appropriate in the future.

In each STACR transaction, Freddie Mac sold notes that provide protection on about four-fifths of the underlying loan pool to investors, retaining the risk on the

balance of the reference pool. The Enterprise can elect to seek protection on some of the retained risk, but has committed to maintain a minimum 5-percent interest in each tranche of each deal. The risk-retention requirement is designed to align the interests of Freddie Mac and investors that have bought the STACRs.

The STACR notes have a final maturity of 10 years. With a fixed loss severity and final maturity, Freddie Mac is exposed to some basis risk on calculated credit losses on the reference pool from 0.3 percent to 3 percent. In addition, the Enterprise retains exposure to the first 0.3 percent of calculated credit losses and to calculated losses beyond 3 percent.

In October Fannie Mae issued debt securities with a similar structure. Specifically, Fannie Mae sold \$675 million worth of Connecticut Avenue Securities, resulting in credit protection on \$25 billion of mortgages securitized in the third quarter of 2012. A material difference compared to the STACR transactions was in the tiered loss severity schedule. Further, one tranche of the Fannie Mae security received an investment-grade rating from one credit rating agency, and that was also achieved in Freddie Mac's second issue this month.

Legal Issues Associated With the Security Structures

Both the STACRs and C-deal were issued as senior debt of Fannie Mae or Freddie Mac. In each case, investors can rely on those Enterprises' special credit standing, including the backing of the Treasury through the preferred stock purchase agreements, for comfort that the payments on the securities to investors will occur as specified in the terms of the notes.

Part of the purpose of these transactions, though, is to develop standardized credit risk investments that could be sold in the future by securitizers other than the Enterprises. The Enterprises ultimately hope to issue credit-linked notes through bankruptcy remote trusts that would have the same economics for investors, but a different legal structure that would not rely on an Enterprises' credit standing, but rather on the trust holding and managing the proceeds from the note issuance. Issues that arose include questions about whether issuers or purchasers of the trust certificates would be commodity pool operators under the Commodity Exchange Act, and whether issuers could be subject to the conflict of interest rules under the Securities Act of 1933. We are working with other agencies to resolve these questions, but statutory clarifications might be helpful, and we are working with Committee staff on possible solutions. We would also note that all of these structures would be ineligible for REMIC tax treatment because they would be considered synthetic structures. If they could obtain similar treatment, the investor base for the securities would be significantly expanded.

2013 Insurance Transactions

Both Enterprises have completed insurance transactions this year, as well. In October Fannie Mae executed a pool insurance policy with National Mortgage Insurance (National MI). The policy transfers a substantial portion of the credit risk on a pool of single-family mortgages securitized by the Enterprise in the fourth quarter of 2012. The aggregate initial UPB of the loans in the pool was nearly \$5.2 billion, and each mortgage had an initial LTV ratio of between 70 percent and 80 percent. Under the policy, Fannie Mae is responsible for actual credit losses on the pool up to 0.2 percent and above 2 percent of the initial aggregate UPB. National MI is exposed to credit losses above 0.2 percent and less than or equal to 2 percent of the initial aggregate UPB, but its exposure on each loan is limited to 50 percent of its initial UPB. Thus, the policy has an aggregate loss limit of about \$103.4 million with a deductible of about \$10.3 million. National MI will pay claims based on actual credit losses determined after an REO sale, short sale, or third-party disposition of the property. To limit its counterparty risk, Fannie Mae has required National MI to maintain a risk-to-capital ratio not to exceed 15:1 through 2015. Thereafter National MI will maintain capital levels required by Fannie Mae's then-applicable requirements.

In November Freddie Mac executed a transaction that transferred to Arch Reinsurance, a global reinsurer, a portion of the residual credit risk that the Enterprise had retained on the reference pool of mortgages underlying the first STACR transaction. Specifically, Freddie Mac had retained the credit risk associated with approximately \$4.0 billion (about 18 percent) of the UPB of the reference pool. Under the reinsurance transaction, Freddie Mac transferred the risk on \$2.9 billion of that UPB to Arch, leaving the Enterprise with retained risk on just over 5 percent of the total UPB, as required by the terms of the STACR transaction. Because Arch insures diversified risks, its financial health likely is less tightly tied to housing markets and mortgage performance, so it may, other things equal, be better able to pay mortgage claims in a severe housing stress environment.

Looking Forward

The Enterprises have executed transactions that transfer single-family mortgage credit risk to capital-market investors and to firms in the insurance industry. Each type of risk-transfer model has inherent strengths and weaknesses. From an Enterprise perspective, the sale of securities to capital-market investors provides up-front funding of credit risk without posing any counterparty risk, while transferring credit risk to an insurer leaves an Enterprise exposed to the claims-paying ability of its counterparty.

From an overall housing finance system perspective, the leverage of participating investors in capital markets transactions may not be regulated, so there may be significant variation in the amount of equity capital deployed to bear credit risk. Further, capital markets funding sources maybe more volatile as a source of funding for mortgage credit risk over the credit cycle. Transferring risk to the insurance sector could be a more stable source of funding mortgage credit risk over the cycle to the extent the financial strength and leverage can be closely monitored either by the market or through regulatory requirements.

Potential differences in the leverage of investors under the two models also have implications for their relative cost. FHFA and the Enterprises will continue to assess those strengths and weaknesses as we explore both models of credit-risk transfer in parallel. Pricing on all of the transactions this year has been attractive, suggesting that each may be scalable to a significant degree. An increased volume of issues next year will provide additional information about the depth of demand.

A potentially powerful means of risk transfer is use of senior/subordinate security structures. While none are expected this year, the Enterprises have made progress in considering how such structures might best work. In the process, they are grappling with many of the problems faced by private label securities issuers of the recent past such as: due diligence, representations and warranties, dispute resolution, and the role of trustees. This approach has an advantage in that markets have a good deal of familiarity with it, but the experience has been less than satisfactory in many cases, particularly involving private-label mortgage-backed securities. If good solutions can be found for past problems, this approach may be easier than some others for non-Enterprise issuers to adopt. A disadvantage to transferring losses on a small pool of mortgages in a cash transaction, rather than on a large reference pool in a synthetic transaction or insurance agreement, is that credit evaluation costs can be considerably higher, as investors must consider the idiosyncratic risks of a particular small pool, rather than those of a cohort diversified by geography, lender, and sheer size. Considering ways to develop more standardization and liquidity in this market could help to address some of these issues.

The transactions considered so far have been Enterprise-centric in that they depend heavily on the Enterprises' existing business practices and the familiarity of loan sellers and investors with those practices. To increase the potential generality of risk-sharing approaches and reduce the dependence on the Enterprises, it may be useful to explore the potential for loan sellers to arrange for credit enhancements, such as those provided by securities or insurance before the loans are sent to an Enterprise, rather than leaving it to the Enterprise. Similarly, servicing and loss mitigation could possibly be outsourced to firms specializing in those activities. Such changes would not happen soon or quickly, but they merit consideration over time.

Conclusion

The Enterprises have made major steps in risk transfer this year. If sufficiently scalable, these transactions provide mechanisms to free taxpayers from shouldering almost all the burden of mortgage credit risk and place that risk in the private sector. We will, with the Enterprises, continue to explore new techniques or variations on those already tried to find the most workable solutions and those that show the best promise of reducing the Enterprises' footprint, consistent with maintaining efficient and effective mortgage markets. Thank you and I am happy to answer any questions you may have.

**RESPONSES TO WRITTEN QUESTIONS OF SENATOR CRAPO
FROM LAUREL DAVIS**

Q.1. Many witnesses called for providing flexibility to the FMIC in permitting different structures for the transfer of credit risk. Can you elaborate as to why flexibility needs to be provided to guarantors in their transfer of credit risk?

A.1. As the question above states, the issue of flexibility in credit risk transfer transactions was raised several times during the recent hearing. In responding to that question, I was only addressing the desirability to permit flexibility for guarantors when structuring particular transactions to transfer credit risk to other credit investors. I was not intending to address the more general question of whether a statute should provide flexibility in how or in what amount private capital should be required to attach prior to a Government guarantee.

As it relates to the need for flexibility for transfers of credit risk by guarantors, to the extent that credit risk transfer transactions proliferate, there are several reasons why different structures may need to be used. They will need to be conducted in different market environments, with different investor demands that include potentially different pools of collateral, and different investor bases (e.g., insurer's, REITs, and money managers) which may have different tax, regulatory and accounting needs. In order for the transactions to be economically efficient for guarantors and attractive to potential investors in credit risk, these differences may require the creation of transactions with diverse structures and will likely require different attachment points. Accordingly, if Congress intends to draft legislation that either requires or permits guarantors of mortgage credit risk to transfer such risk, it would be highly desirable for such guarantors to be granted significant flexibility in how they structure such transactions.

Another aspect that should be considered related to flexibility is the prevailing regulatory environment in which guarantors will operate. Guarantors may need flexibility in how they structure transactions to ensure compliance with such requirements, including capital regulation. Federal financial regulators have already opined on these issues as it relates to other financial institutions.

**RESPONSES TO WRITTEN QUESTIONS OF SENATOR REED
FROM WANDA DELEO**

Q.1. On what date will the entire Common Securitization Platform be ready to perform all of its functions?

A.1. The Enterprises are currently developing the Common Securitization Platform (CSP), and have built the core functionality and the related infrastructure components. Preliminary testing is underway. The CSP's design and its development have necessarily evolved over time, and a significant amount of work remains with regard to both the CSP itself and the business entity that will own it. The Enterprises are engaged in developing and implementing operational and business processes for the CSP and the joint venture entity, and they are developing their integration plans critical to the success of the CSP. Fannie Mae and Freddie Mac are conducting this work under FHFA's guidance and with industry input.

Consequently, plans for this project will continue to evolve as the Enterprises take into account the many factors that will drive project success. The project plans will not be finalized until the Enterprises, under FHFA's oversight, are in a position to do so. As a result, we do not yet have a date by which the Common Securitization Platform will be operational.

Q.2. When the Common Securitization Platform is finally ready to perform all of its functions, how much money, all in, will have been spent in total by FHFA, each GSE, and Common Securitization Solutions, LLC, including contracting costs? Does this cost include the cost of any adjustments and upgrades that may be necessary so that Fannie and Freddie can take advantage of the Common Securitization Platform? If not, what is this additional cost expected to be?

A.2. As discussed above, the Common Securitization Platform project plans, inclusive of the design, build, and testing of the technology and the Enterprises' system and process changes, are being finalized. As a result, we have neither final plans nor specific budgets assigned to these still-in-development projects. To date, the following funds have been spent:

- CSP and CSS: \$65 million (1/21/2012–12/31/2013)
- Fannie Mae Integration: \$20 million (1/1/2013–12/31/2013)
- Freddie Mac Integration: \$7 million (1/1/2013–12/31/2013)

Q.3. FHFA staff has stated that FHFA “has not prepared a formal valuation analysis regarding the platform,” which I find disturbing, especially since taxpayer funds are essentially at stake here and are in the process of being spent. Should we be worried by the fact that FHFA is making financial decisions with taxpayer funds without any “formal valuation analysis regarding the platform?”

A.3. FHFA understands your concern but believes that the approach to the project has been prudent and well considered. The project is consistent and aligned with many other projects undertaken by the Enterprises, at the direction of the agency, to achieve uniformity in areas essential to achieving an effective mortgage securitization system. The Servicer Alignment Initiative, Common Appraisal Data Portal, and Uniform Mortgage Data Program are some of the projects that have established common and uniform standards and practices in the Nation's housing finance system, providing benefits not just to the Enterprises, but also to other market participants.

The decision to engage the Enterprises in this project is neither solely nor even principally a financial decision, although the financial costs associated with it are very important and being monitored. Rather, the decision is rooted in FHFA's legal obligations, both as conservator and regulator. The decision is based on achieving market efficiencies and providing policy makers with options as they determine the future of the U.S. housing finance system. The agency has determined that the building and operation of the CSP would also achieve many supervisory goals and realize other significant benefits.

Q.4. Fannie and Freddie are still two distinct legal entities, and FHFA acts as conservator for each GSE. Given how valuable the

Common Securitization Platform would be to each GSE on its own, how did FHFA, as conservator for each GSE, determine that a 50/50 joint venture was the right decision for each GSE? In preserving and conserving the assets of Fannie with a view towards putting it in a sound and solvent condition, why would FHFA, as conservator for Fannie, give Freddie a 50 percent stake in such a valuable asset?

A.4. As Conservator, FHFA decided that it was most beneficial to establish common securitization technology, which would be available to Fannie Mae and Freddie Mac and ultimately to all market participants, rather than have each Enterprise separately undertake extensive and proprietary infrastructure projects. FHFA believes that building the CSP functionality once, through the joint and collaborative efforts of, and its use by, both Enterprises, will be more cost-effective than having each Enterprise independently rebuild its core securitization and servicing systems. Neither of the Enterprises' existing systems would allow for relatively quick, effective and efficient access by the industry either in the near or medium term. Furthermore, independent and proprietary Enterprise systems would not allow for uniformity across the mortgage finance industry, thereby exacerbating the current disarray within the industry and complicating the already difficult task before policy makers. FHFA believes that two different systems rather than common technology could seriously delay or complicate attempts to reform the Nation's housing finance system. Independent technology provides policy makers with greater options for reforming the system than would a rebuilding of the Enterprises' individual systems. FHFA and the Enterprises have established a process to ensure that each Enterprise's contribution to the joint venture is equitable and fair retroactively and prospectively.

Q.5. Please provide all formation documents prepared in conjunction with the formation of Common Securitization Solutions, LLC (CSS), including but not limited to the operating agreement, all legal opinions, all resolutions from the Board of Directors for each of Fannie Mae and Freddie Mac duly authorizing the formation of CSS, and documentation of all costs incurred thus far and expected costs associated with CSS.

A.5. We would be happy to provide you and your staff an opportunity to review the documents noted above at the FHFA offices. Please contact Peter Brereton, Associate Director for Congressional Affairs, if you would like to schedule such a review, and if you require additional information or have additional questions.

ADDITIONAL MATERIAL SUPPLIED FOR THE RECORD

**PREPARED STATEMENT OF LAURIE S. GOODMAN, DIRECTOR,
HOUSING FINANCE POLICY CENTER, THE URBAN INSTITUTE**

Mr. Chairman, Ranking Member Crapo, and Members of the Committee, thank you very much for the opportunity to testify today. My name is Laurie Goodman, and I am the director of the Housing Finance Policy Center at the Urban Institute. This is a new center, dedicated to providing data-driven analysis of policy issues relating to housing finance and the housing market. Prior to joining the Urban Institute this past summer, I spent almost 30 years as a mortgage-backed securities research analyst and as head of securitized products research/strategy at several firms, including Amherst Securities Group LP and UBS.

Recently, both Freddie Mac and Fannie Mae have completed deals in which they transferred some of the risk from their guarantor book of business to private investors. As we contemplate a new housing finance system in which private entities take the first loss, backed up by a catastrophic Government guarantee, the obvious question arises: to what extent are these deals applicable to a new housing finance structure?

The answer is that there are lessons that can be learned from the recent transactions, but the lessons are not completely transferable to a new structure. This discussion is divided into four sections. The first looks at the Freddie and Fannie risk-sharing transactions and their impact in the current environment, where efforts are being made to reduce the Government footprint. The second section looks at the role of risk-sharing type structures in a guarantor/bond insurance framework. The third section looks at the role of risk-sharing type structures in a capital markets framework. The final section contains my conclusions. To quickly preview my conclusions:

- Regulatory relief through changes in the CFTC commodity-pool rules is necessary to promote the use of credit-linked notes.
- Capital regulation for future guarantors should include stress tests, a base capital ratio of 5 percent, a risk-based capital component, and capital relief for credit-risk transfers, subject to a minimum absolute capital requirement.
- The system must have a guarantor (insurer) execution and not rely solely on the capital markets to lay off credit risk.

Freddie and Fannie Risk-Sharing Transactions

In the absence of Government-sponsored enterprise (GSE) reform legislation, the Federal Housing Finance Agency (FHFA) has attempted to bring private capital back into the mortgage market. They have employed a number of mechanisms and have contemplated others. These fit into three main categories:

- The FHFA has attempted to decrease the share of originations purchased by the GSEs. They have raised guarantee fees to encourage lenders to use other execution channels, such as holding loans in portfolio or opting for a private-label securitization. Guarantee fees at Fannie Mae have increased from 28 basis points (bps) in the first quarter of 2012 to 58.7 bps in the third quarter of 2013, more than a doubling in an 18-month period. This has not been sufficient to curb the reliance on the GSEs, but future guarantee-fee increases of 10–20 bps could tip the execution of the highest quality loans to bank portfolios, which could, in turn, result in adverse selection to the GSEs. Private-label securitizations are much more expensive than either GSE or bank executions at the present time, and a considerably larger guarantee fee increase would be required for this execution channel to be used. Reducing loan limits is another lever that the FHFA has considered as a way to reduce the GSE share.
- The FHFA has contemplated vehicles that allow for risk transfer at the point of sale (up-front risk sharing). The GSEs would be permitted to accept loans with more credit enhancement in exchange for lower guarantee fees. This can be done through deep mortgage insurance (MI), through lender recourse, or conceptually by allowing the lenders to arrange their own capital markets transactions, similar to the risk sharing deals that have been recently completed by Fannie and Freddie. The Mortgage Bankers Association has proposed greater use of up-front risk sharing.¹
- The FHFA has also required Fannie and Freddie to lay off risk that is already on their books (back-end risk sharing). The GSEs have tried three different

¹See, Mortgage Bankers Association “Key Steps on the Road to a Sustainable Secondary Mortgage Market”, 9/18/2013.

methods for laying off this risk: (1) capital markets transactions, (2) purchasing mortgage pool insurance, and (3) purchasing reinsurance. Fannie and Freddie have each done deals in which the mortgage credit risk has been laid off via capital markets transactions. There have been three deals to date: Freddie Mac's Structured Agency Credit Risk deals (STACR 2013-DN1 and -DN2), and Fannie Mae's Connecticut Avenue Securities deal (CAS 2013-C01). In August, Fannie Mae announced it had tapped National Mortgage Insurance Corporation to insure a pool of \$5 billion of mortgages already on Fannie's books. And in November, Freddie Mac executed a transaction that transferred to Arch Reinsurance, a global reinsurer, a portion of the credit risk that it had retained on the first STACR transaction. The capital markets transactions, and their applicability to the future state, are the focus of this panel, but a few comments on their applicability in the current state is also in order.

Fannie and Freddie's three capital markets risk-sharing transactions have been very successful. The first deal was priced too cheaply, as one would expect from a new asset class. This, however, had the effect of enticing investors who did not participate in the first deal to take a look at subsequent structures. Since the first deal, there has been a move to tighter spreads as the asset class has gained acceptance. For example, the M-2 tranche of the first STACR deal, priced in July, sold at 715 bps over 1-month LIBOR, while the second, priced on November 12, sold at a 425 bps spread. Table 1 shows details for the three transactions, including the spreads at which the securities were sold. At this point there is very substantial private-sector interest, which is critical as policy makers look to the private markets to take more mortgage credit risk.

These risk-sharing transactions, in conjunction with the other actions being contemplated and taken, are a very valuable way to contract the Government's footprint in the mortgage market while the GSEs are in conservatorship. They can be done administratively at the direction of the FHFA, and require no legislative action. We expect to see many more of these transactions now that both GSEs have established programs.

A Few Details on the Risk-Sharing Transactions

Before we delve into the applicability of these transactions in a new, reformed housing finance system, it is important to underscore a few specifics about these transactions.

The transactions are synthetic; that is, they reference the relevant credit risk. The transactions are structured as unsecured general obligations of Freddie Mac (for the STACR deals) and Fannie Mae (for the CAS deal). The return of principal on the notes is tied to the credit risk of a pool of residential mortgage loans (the reference pool) owned or guaranteed by Freddie Mac (Fannie Mae). Freddie Mac (Fannie Mae) is entitled to reduce the principal balance of the notes, at a tiered severity percentage, when the loans in the reference pool became at least 180-days delinquent or when another credit event occurs. This tiered severity ranges from 10 percent to 40 percent in the Fannie deal, and 15 percent to 40 percent in the Freddie deals. Prepayments are generally passed through to the note holders pro rata as a return of principal.

The deals were done as synthetic transactions because of the desire to mimic the credit-risk transfer in a senior/subordinate structure. Using an actual senior/subordinated structure would not be economical because the senior bonds would not be eligible to trade in the "to be announced" (TBA) market and thus would lose a considerable amount of liquidity.

The FHFA has publicly stated that they want to expand the types of deals being done to include senior/subordinated transactions. These types of transactions make sense for collateral that is not eligible for delivery into the TBA market. One of the largest buckets of non-TBA eligible collateral is pools of jumbo loans, which are priced lower than corresponding TBA securities.² I expect there to be a senior/subordinated transaction backed by jumbo collateral at some point in 2014.

The structures take the form of debt obligations, not credit-linked notes. During the first half of 2012, as the planning for the risk sharing began, it was expected that the structures would assume the form of a credit-linked note with an embedded swap. In a credit-linked note, the security is issued by a special purpose company or trust. This special purpose vehicle (SPV) takes the initial proceeds of the offer-

²Jumbo loans are those over the base GSE limit of \$417,000; in high-cost areas, where the limit is tied to area median prices, it now ranges up to \$625,500, and has been as high as \$729,750. A de minimus amount of these loans can be included in TBA pools; the balance must be pooled separately. The collateral for a senior/subordinated deal would be composed entirely from the non-TBA eligible jumbo loan pools.

ings and invests them in a risk-free instrument, such as U.S. Government debt. The SPV simultaneously enters into a credit default swap; under the terms of the credit default swap, the SPV receives an annual fee based on the remaining principal balance, and makes payment(s) if credit event(s) occur. Thus, investors will receive the interest on the cash investment plus the annual fee. They may receive less than a par return on their cash, depending on whether the level of credit events was sufficient to impact their principal. A credit-linked note structure is a pure bet on the risk being transferred; the credit risk of its sponsor is not a factor.

In September 2012, the CFTC broadened its definition of “commodity pool” to cover many transactions that include swaps. If the issuance had been done as a credit-linked note, it would have fallen under the broadened commodity pool definition. Commodity pools are subject to reporting and regulatory burdens that I believe are inappropriate for an instrument of this nature. For example, a nonexempt pool operator must not only register as a Commodity Pool Operator (CPO), but the CPO must become a member of the National Futures Association (NFA). Its personnel must register with the NFA and pass an NFA exam. There are also numerous reporting requirements designed to capture information from entities operated for the purpose of trading commodities; it is unclear how many of these can be applied to securitizations, which are passive vehicles containing illiquid assets. This includes periodic reporting concerning the commodity pool’s changes in net asset value, trading strategies, and performance data. It would also require the securitization to name a Commodity Trading Advisor (CTA), and the choice of this entity in a securitization is unclear: it could be the sponsor or the trustee. The commodity pool registration could trigger Volcker Rule prohibitions, making it difficult for banks to own these instruments.

By issuing the obligation as Freddie Mac or Fannie Mae debt, rather than from a SPV, these problems were avoided. The only difference between doing these transactions as GSE debt rather than as credit-linked notes is that the investor was exposed to the credit risk of the sponsor. The STACR and CAS transactions contain exactly the same embedded swap as they would in an SPV structure.

Investors are happy to buy these transactions as a debt issue because they believe Fannie and Freddie are backed by the full faith and credit of the U.S. Government, and hence they are making a decision solely on mortgage credit risk, rather than a joint decision on the mortgage credit risk and the strength of the underlying entity. In a market in which the entity laying off the risk was not fully Government-backed, the structure used for the STACR and CAS transactions would definitely be more expensive, and might not be viable. Thus, as we move away from a Fannie/Freddie-dominated world, it becomes critical that the CFTC issues some form of regulatory relief so these transactions could be done as credit-linked notes.

The structures reference well-diversified pools of loans. Freddie Mac’s STACR 2013-DN1 deal (see Table 1) had the smallest reference pool, at \$22.5 billion. This reference pool included all loans acquired by Freddie Mac between July 1, 2012, and September 30, 2012, that met the following criteria: (1) full documentation, 30-year fully amortizing fixed-rate first-lien loans on one- to four-unit properties; (2) originated on or after April 1, 2012, and securitized in Freddie Mac PC prior to January 31, 2013; and (3) original LTV between 60 and 80.³ The other transactions referenced similarly broad groups of loans. The sheer size and diversification suggests that there is little idiosyncratic risk in these pools.

The GSEs are retaining some risk on these deals, giving them “skin in the game.” In the three transactions that have been done to date, the GSEs have retained the first-loss position as well as part of the risk of the subordinate M1 and M2 tranches. For example, in the first STACR deal, total subordination was 3 percent. The first-loss position (B-H) was 30 bps, and the M1 and M2 slices were 135 bps apiece. Freddie retained the entire B-H tranche as well as about 17.8 percent of the M-1 and M-2 slices (the M-1H and M-2H tranches). This is important because the GSEs have substantial control over the servicing practices, and this helps assure investors that these loans will be serviced no differently than anything else in the GSEs’ portfolios.

The timing of these transactions is discretionary. Since these assets are already on the GSEs’ books, the risks can be laid off at any time. If one of the GSEs was thinking of doing a deal, but market conditions changed, it could be pulled until market conditions improved.

³There were additional minor restrictions. Loans that were ever delinquent, found to contain underwriting defects, or had prepaid in full were excluded.

The Future State of the Mortgage Market

There is a growing consensus the GSE reform is necessary. There is also a growing consensus on two principles:

- the private sector must play a far greater role in bearing mortgage credit risk; and
- continued Government involvement is essential to ensuring that mortgages remain available and affordable to qualified homebuyers throughout the business cycle.

Thus a number of proposals—including S.1217 (Corker-Warner); the Bipartisan Policy Council’s Housing Commission (BPC HC),⁴ of which I was a part; and a paper coauthored by two of my Urban colleagues, Ellen Seidman and Sarah Rosen Wartell, and by Phillip Swagel and Mark Zandi (SSWZ),⁵—are aligned in proposing that the future state of the mortgage market should consist of mortgage originators and servicers who make the loans, a securitization platform, and a system of private credit enhancement. The securitizer must arrange for the private credit enhancement prior to securitization. There would be a limited catastrophic Government guarantee, paid for up front, which would be triggered only after all private capital available to support the mortgages had been exhausted.

The proposals suggest that private credit enhancement could take two different forms: a guarantor (bond insurer) framework and a capital markets framework. Both Corker-Warner and the BPC HC allow for both mechanisms in the reformed system, while SSWZ allows for the insurer alone. In all cases, the guarantor (insurer) is able to lay off risk through risk-sharing arrangements. I believe the form of the private capital will dictate the use and importance of risk-sharing arrangements in the future state. Moreover, the decision as to what form that first-loss piece takes is quite important and is not obvious; each approach has its strengths and weaknesses.

The Guarantor/Bond Insurance Framework

In a guarantor framework, the bond insurer (guarantor) is liable for the credit enhancement up to the amount of its capital (as long as it is solvent). We assume GSE reform legislation would permit an insurer to voluntarily decide to lay off some of the risk on its transactions, and use structures similar to that being used in the STACR and CAS deals. The bond insurer would essentially play the role that Fannie and Freddie play in the current environment. This would allow bond insurers to employ these structures when it is cost-effective to do so, so the timing would be flexible. There will be times when the capital markets bid will be lower than what bond insurers require, and guarantors will likely to try to lay off risk under such circumstances. This can be expected to occur when debt financing is trading cheaply relative to equity financing. Guarantors can also choose to lay off only part of the risk. This access to capital markets execution would also allow the bond insurers to do price discovery.

It is very likely that the bond insurer would dictate minimum servicing standards in order to minimize its losses, just as Fannie and Freddie do today. Investors would probably require that the guarantor retain some skin in the game, to gain assurance that the mortgage loans in which the risk has been laid off are not treated any differently than those in which the risk has not been laid off.

However, risk sharing by the bond insurers under any of the proposals would be different from the STACR and CAS deals in one important respect. Investors are happy to take mortgage credit risk in synthetic form as embedded in Fannie Mae and Freddie Mac securities, because they believe the underlying entities are backed by the full faith and credit of the U.S. Government. If a bond insurer under any of the current proposals were selling the risk, the investor would be making a joint bet on the entity and the mortgage credit risk. The investors that evaluate mortgage credit risk are not necessarily the entities that take corporate credit risk. The result would be poorer execution. I believe the securities would trade at more favorable rates if one could separate the risk of the underlying entity (the corporate credit risk) from the mortgage credit risk, and allow for the issuance of credit-linked notes. This would require that transactions used to transfer mortgage credit risk be exempt from commodity pool rules.

⁴See, Bipartisan Policy Center Housing Commission, “Housing America’s Future: New Directions for National Policy”, February 2013.

⁵See, Ellen Seidman, Phillip Swagel, Sarah Rosen Wartell, and Mark Zandi, “A Pragmatic Plan for Housing Finance Reform”, Moody’s Analytics, the Milken Institute, and the Urban Institute, June 19, 2013.

It is possible that the bond insurers would put together pools that are poorly diversified, but I believe the market will be unwilling to accept this. That is, investors are likely to believe that the insurer has better information than they do about any given loan, so if a pool is not a large representative sample, there is some chance the loans have been adversely selected, and the securities are likely to be priced accordingly. However, as long as the bond insurer itself is adequately diversified, and liable as long as it is solvent, then this is a business decision for a future bond insurers and investors in the securities, and not an issue for a future regulator.

Sizing Capital Requirements

There are additional issues that would need to be dealt with in a future state that are not considerations for the GSEs in conservatorship. One of the most important is whether the institutions receive capital relief for risk-sharing transactions. I assume this would be the case, as these transactions would clearly allow the institutions to operate safely with less capital. However, the amount of any relief is more difficult to size than one might think. For example, if the amount of capital relief is fixed, a bond insurer may choose to transfer only its safest loans to the capital markets. The result would be that after the transaction, the bond insurer would be holding less capital than is prudent against a riskier set of loans. This problem could be partially solved by requiring a minimum absolute capital requirement, with a variable amount of capital relief for risk-sharing transactions.

There has been a considerable amount of conversation about how much capital is enough. Corker-Warner suggests 10 percent. The required capital should be sufficient to allow the institution to withstand severe stress. Many, including myself, believe the recent crises should be used to size capital requirements. The data that has been provided in support of the STACR and CAS risk-sharing deals has been invaluable to market participants in assessing mortgage credit risk, and can be used to size capital requirements. The data covers the performance of Fannie's and Freddie's books of business from about 2000 onward. Although it is limited to full-documentation fixed-rate amortizing 30-year mortgages, excluding special affordability products, the structure of the loans is very similar to the business the GSEs are currently doing and are likely to do going forward.

My colleagues and I at the Urban Institute have analyzed this data.⁶ We have shown that the 2007 Freddie Mac book of business, because of the subsequent nearly 35-percent drop in home prices nationwide, experienced cumulative "defaults" of 10.9 percent, the highest of any vintage year. A "default," or "credit event," as it is referred to in the risk-sharing transactions, is defined as a mortgage that went 180-days delinquent or was liquidated prior to going 180-days delinquent by short sale, REO sale, or deed-in-lieu. To translate defaults to losses, we assume a severity of 40 percent, the highest number used in the three risk-sharing transactions, and multiply the severity by the default rate to size losses.⁷ Freddie's 2007 vintage 10.9-percent default rate translates into a 4.4-percent loss rate. For the Fannie book of business, the cumulative credit event rate was 14.1 percent, which translates into a 5.6-percent loss rate. Thus, it is clear that 5-percent capital would have allowed the GSEs to weather this very adverse environment. This is a conservative estimate in that it applies the worst vintage year to the entire business.

However, this analysis cannot be conducted in the abstract. It cannot be divorced from the question of how many insurers there would be and how to ensure that each one is adequately diversified. For example, for an insurer who insured loans in only one State, even a 10-percent capital requirement might be insufficient. Similarly, if the regulator gave capital "credit" for credit-risk transfers, it would be conceptually possible for an insurer to lay off almost all the risk, keeping a small piece of non-diversified risk, which should demand significantly more capital than would have been needed to support the risk in the initial diversified book.

A regulator is unable to be perfect, and unforeseen events occur. Thus, I suggest that some type of stress testing should be implemented. Certainly, the Federal Reserve's stress testing of systematically important banks has been a huge success. Stress testing would identify insurers that are nondiversified or have laid off risk in a manner than leaves them exposed. If the insurer failed the stress test, it should be required to take corrective action promptly, including cutting off dividends and raising capital within a well-defined period of time. If the insurer failed to take these actions, or was unable to raise more capital, it would be shut down, with the

⁶See, Laurie Goodman and Jun Zhu, "The GSE Reform Debate: How Much Capital Is Enough?", Urban Institute, October 2013, for more detail.

⁷The 40-percent severity covers the probability that a loan that goes 180-days delinquent goes on to liquidate multiplied by the severity if the loan eventually liquidates.

insurance transferred to another entity (similar to a servicing transfer in the current environment). This transfer could require a Government subsidy.

Thus, when sizing the capital requirements, it seems clear that any new system relying on insurance should include the following:

- a 5-percent base capital requirement;
- additional risk-based capital requirements to cover inadequate diversification or an unusually risky book of business (e.g., an unusually high concentration of high-LTV or low-FICO loans on the part of the insurer);
- capital relief for risk-sharing transactions, subject to a minimum capital requirement; and
- stress testing of insurers, with corrective action required if there is a stress test failure.

Because sizing capital cannot be divorced from diversification, the ideal system should have a moderate number of well-diversified insurers that compete with each other. Too few institutions would limit competition and raise “too big to fail” concerns; too many are likely to be insufficiently diversified and operationally inefficient. I do believe it is necessary to have minimum diversification requirements.

The design of a new system must also consider the role of traditional MI providers. By statute, Fannie and Freddie are required to lay off the risk on any mortgage greater than 80 LTV; that is, they are not permitted to bear this risk. Thus, a mortgage insurance industry has been established to take the risk on all mortgages over 80-percent LTV. Under Corker-Warner, the mortgage insurers would stay largely as they are, though they would cover loans down to about 70-percent LTV, and they could not also be bond guarantors. In my opinion, if one is remaking the system, it should not be taken as a given that the mortgage insurance industry remains as is. Both the bond insurers and the mortgage insurance companies would be assuming the same mortgage credit risk, hiring people with similar skills, and developing models to evaluate the credit risk. It may make more sense to combine the functions. However, if the functions were combined, it would be prudent to require bond insurers to hold more capital than in a system in which these functions remain separate.

In short, the guarantor model can easily employ the risk-sharing techniques used in the STACR and CAS transactions, but the capital credit that is given for doing so cannot be divorced from the question of how capital requirements should be sized for the guarantors in a future system.

The Capital Markets Framework

Under a capital markets framework for a new housing finance system, each security would require credit enhancement at the time of the securitization via a senior/subordinated bond market transaction or a synthetic alternative like Freddie and Fannie are using. The transactions would be more natural in nonsynthetic form. However, since there is no insurance entity, the transaction could not be done as a debt issuance; it would have to be a credit-linked note structure, with the originator as the deal sponsor. This, in turn, creates the problem that the deal is considered a commodity pool, an issue discussed earlier.

Any capital markets solution must be combined with an insurance solution for several reasons. First, a pure capital markets solution relies on only one source of capital (the debt markets), with no flexibility to also rely on equity capital to take mortgage credit risk. Second, it requires the pricing of the credit enhancement to occur simultaneously with the securitization. There may be times when the pricing is quite unfavorable, and the originator would be forced to take that pricing, leading to more volatile mortgage rates for borrowers. Third, this structure is not kind to small lenders, who will have trouble aggregating a large enough pool of loans to obtain the required enhancement. That is, a small pool is almost by definition non-diversified and would command unfavorable pricing. Additional concerns include regulatory efficiency and effectiveness, the viability of the mortgage market during times of market stress, and ensuring broad-based credit availability. As a result, none of the GSE reform proposals advocate exclusively a capital markets solution. Corker-Warner allows for both capital markets and guarantor arrangements, as does the BPC HC proposal. The SSWZ proposal does not allow for capital markets execution except in allowing an insurer to lay off some risk.

If the capital markets solution is meant to coexist with the guarantor solution, the capital markets structure must either (1) use synthetic structures, or (2) if one were to use cash structures, the market must agree the senior bonds in the senior/subordinate structures are eligible for TBA delivery. This would require the market to simultaneously accept, as TBA, mortgages that reflect the full cash flow stream,

as well as those in which the subordinated cash flows are not included. I am not sure the market will allow for this degree of flexibility.

Diversification

The biggest problem I see with the capital markets solution, which is often overlooked, is that the interaction between the required capital and diversification is quite complicated, and hard to get right. Let us assume we fix the capital requirements at Corker-Warner's 10 percent. As discussed in the previous section, our work at Urban has shown that under most circumstances a 5-percent capital requirement is more than enough. A 5-percent capital requirement would have been sufficient to cover, for their entire book of business, the losses Fannie and Freddie incurred on the 2007 origination activity, a vintage that experienced 35-percent home price declines. However, in a capital markets execution, even if you require 10-percent capital, it is easy to construct pools where inadequate diversification due to either size or geography means that is not nearly enough. For example, we looked at 1,000 randomly selected pools of 2,500 Freddie Mac loans from the 2007 vintage and found the mean default rate would have produced losses in the 4.0 percent to 4.5 percent area, with default rates on individual pools up to 1 percent higher and lower.⁸ But a pool of only Arizona loans had a much higher default rate than the Nation as a whole; the mean loss rate, using 40-percent severity, was in the range of 9.0 percent to 9.5 percent. When we looked at 1,000 randomly selected pools of 2,500 loans, the loss rates ranged from 8 percent to 10.75 percent. When we looked at 1,000 randomly selected smaller pools of 100 loans, the loss rates of the pools ranged from 4.4 percent to 16 percent. Clearly, individual pools will be smaller than all the loans in a given Fannie or Freddie vintage, and the Government should want more first-loss capital to come before its guarantee when pools are small, nongeographically diversified, or nondiversified in other ways. In contrast, the STACR and CAS securities were large, well-diversified pools, eliminating any nonsystematic results.

Thus, if a reformed system mandates a fixed amount of capital for capital markets transactions, it must also mandate diversification requirements. The new regulator would set the diversification requirements, but these requirements will be very hard to calibrate.

Instead of a fixed capital standard, a risk-based approach could be used. One can imagine a system in which the originators enter the loan-by-loan composition of a proposed pool into a system provided by their regulator, and the system tells them the capital necessary to support that pool. It's the equivalent of buying tomatoes at the supermarket, then bringing them to be weighed. It is cumbersome, and creates some pricing uncertainty. It also means that different pools will have different amounts of credit enhancement, and the redesigned TBA market must be willing to accept this.

These diversification issues are further compounded for smaller originators. It is not clear how they get the number of loans needed for a capital markets offering. Even if they could get a critical mass of loans, those loans are apt to represent insufficient diversification. It is unlikely smaller lenders could utilize a capital markets solution without an aggregator. If there is a parallel guarantor execution vehicle, this issue is still difficult, although less critical. In short, the interaction between required capital (subordination) and diversifications is complicated, and there is no silver bullet.

Conclusion

The STACR and CAS transactions have clear applicability in any new housing finance system. If a guarantor structure is used, the guarantor plays the role of Fannie and Freddie. The largest issue relating to risk transfer in this model is what credit the guarantor will receive for laying off these risks on the capital markets. I definitely believe credit should be given, as transferring risk allows the guarantors to operate safely, with less capital.

If the new housing finance regime allows for both a guarantor execution and a capital markets execution, the big issue with risk transfer is how to ensure adequate diversification to protect the Government. If a fixed capital requirement is mandated, the regulator must ensure adequate diversification on each individual pool. If a risk-based capital requirement is used, it requires substantial calibration on the part of the regulator, as well as some uncertainty for the lender, as the lender does not know the capital requirement until the pool is final.

More generally, three conclusions emerge from this analysis:

⁸Laurie Goodman and Jun Zhu, "The GSE Reform Debate: How Much Capital is Enough?", Urban Institute, October 2013. In this article, we expressed the numbers as default rates, we have converted to severities for the purpose of this exercise.

First, it is important to resolve the commodity pool issue so that synthetic structures using credit-linked notes, which allow for separation of the risk of the sponsoring entity from the credit risk on the mortgages that are being transferred, can be used.

Second, in any future state, capital regulation for guarantors should include stress tests, a base capital ratio of 5 percent, a risk-based component, and capital relief for credit-risk transfer, subject to a minimum absolute capital requirement.

Third, in the future state, the system must have a guarantor (insurer) execution, and not rely solely on the capital debt markets to lay off credit risk. This is necessary in order to promote the TBA market, allow for the presence of small lenders, assure broad-based credit availability of credit, and be resilient during periods of market stress.

Table 1. Risk-Sharing Transactions

Date	Agency	Deal	Class	Amount	Tranche Thickness	Credit Enhancement	Rating	Initial Spread
7/24/13	Freddie Mac	STACR Series 2013-DN1	A-H	\$21,906,830,673	97%	3%	NR	n/a
			M-1, M-1H	\$304,888,881	1.35%	1.65%	NR	340
			M-1	\$250,000,000	1.26%			
			M-1H	\$54,888,881	0.09%			
			M-2, M-2H	\$304,888,881	1.35%	0.30%	NR	715
			M-2	\$250,000,000	1.26%			
			M-2H	\$54,888,881	0.09%			
			B-H	\$67,753,085	0.30%	0%	NR	n/a
			Total Reference Pool Size	\$22,584,361,520	100%			
10/24/13	Fannie Mae	CAS 2013-C01	A-H	\$25,953,684,593	97%	3%	NR	n/a
			M-1, M-1H	\$361,211,074	1.35%	1.65%	BBB-sf (Fitch)	200
			M-1	\$337,500,000	TK			
			M-1H	\$23,711,074	TK			
			M-2, M-2H	\$361,211,074	1.35%	0.30%	NR	525
			M-2	\$337,500,000	TK			
			M-2H	\$23,711,074	TK			
			B-H	\$80,269,128	0.30%	0%	NR	n/a
			Total Reference Pool Size	\$26,756,375,869	100%			
11/12/13	Freddie Mac	STACR Series 2013-DN2	A-H	\$34,267,497,133	97%	3%	NR	n/a
			M-1, M-1H	\$370,936,825	1.05%	1.95%	Baa1 (Moody's), BBB-sf (Fitch)	145
			M-1	\$245,000,000	0.69%			
			M-1H	\$125,936,825	0.36%			
			M-2, M-2H	\$582,900,724	1.65%	0.30%	NR	425
			M-2	\$385,000,000	1.09%			
			M-2H	\$197,900,724	0.56%			
			B-H	\$105,981,950	0.30%	0%	NR	n/as
			Total Reference Pool Size	\$35,327,316,632	100%			

Sources: Freddie Mac, Fitch Ratings and Urban Institute.

Note: Classes A-H, M-1H, M-2H, and B-H are reference tranches only. These classes are not issued or sold. The risk is retained by Freddie Mac and Fannie Mae.